

COUNTY OF FAIRFAX

COMMONWEALTH OF VIRGINIA

GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS

(Vendor: The general rules and conditions which follow apply to all purchases and become a definite part of each formal solicitation and resulting contract award issued by the DEPARTMENT OF PURCHASING & SUPPLY MANAGEMENT, unless otherwise specified. Bidders or their authorized representatives are expected to inform themselves fully as to the conditions, requirements, and specifications before submitting bids; failure to do so will be at the bidder's own risk and relief cannot be secured on the plea of error.)

Subject to all State and local laws, policies, resolutions, and regulations and all accepted rules, regulations and limitations imposed by legislation of the Federal Government, bids on all solicitations issued by the DEPARTMENT OF PURCHASING & SUPPLY MANAGEMENT will bind bidders to applicable conditions and requirements herein set forth unless otherwise specified in the solicitation.

1. AUTHORITY-The Purchasing Agent has the sole responsibility and authority for negotiating, placing and when necessary modifying every solicitation, contract and purchase order (except for capital construction projects) issued by the County of Fairfax. In the discharge of these responsibilities, the Purchasing Agent may be assisted by assigned buyers. Unless specifically delegated by the County Purchasing Agent, no other County officer or employee is authorized to order supplies or services, enter into purchase negotiations or contracts, or in any way obligate the government of the County of Fairfax for an indebtedness. Any purchase ordered or contract made which is contrary to these provisions and authorities shall be of no effect and void and the County shall not be bound thereby.

2. DEFINITIONS-

AGENCY: Any Department, Agency, Authority, Commission, Board or other unit in the Administrative Service of the County.

BEST VALUE: As predetermined in the solicitation, means the overall combination of quality, price, and various elements of required services that in total are optimal relative to a public body's needs.

BID: The offer of a bidder to provide specific goods or services at specified prices and/or other conditions specified in the solicitation.

BIDDER/OFFEROR: Any individual, company, firm, corporation, partnership or other organization bidding on solicitations issued by the Purchasing Agent and offering to enter into contracts with the County. The term "bidder" will be used throughout this document and shall be construed to mean "offeror" where appropriate.

CONTRACTOR: Any individual, company, firm, corporation, partnership or other organization to whom an award is made by the County.

COUNTY: County of Fairfax.

GOODS: All material, equipment, supplies, printing, and automated data processing/information technology hardware and software.

INFORMALITY: A minor defect or variation of a bid or proposal from the exact requirements of the invitation to bid or the request for proposal which does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured.

INVITATION FOR BID (IFB): A request which is made to prospective suppliers (bidders) for their quotation on goods or services desired by the County. The issuance of an IFB will contain or incorporate by reference the specifications and contractual terms and conditions applicable to the procurement.

OPEN MARKET PROCUREMENT (OMP): A method of competitive bidding for the purchase or lease of goods, non-professional services or for the purchase of insurance, construction, or construction management when the estimated cost thereof shall be less than \$50,000.

PROFESSIONAL & CONSULTANT SERVICES: Any type of professional service which is either: 1) performed by an independent contractor within the practice of accounting, actuarial services, architecture, dentistry, land surveying, landscape architecture, law, medicine, optometry, pharmacy, or professional engineering (which shall be procured as set forth in the Code of Virginia §2.2-4301 in the definition of competitive negotiation at paragraph 3 (a), and in conformance with the Fairfax County Purchasing Resolution), or 2) any other type of similar contractual service (including consultants), required by the Fairfax County Government but not furnished by its own employees, which is in its nature so unique that it should be obtained by negotiation on the basis of demonstrated competence and qualification for the type of professional service required and at fair and reasonable compensation rather than by competitive sealed bidding.

PURCHASING AGENT: The Purchasing Agent employed by the Board of Supervisors of Fairfax County, Virginia.

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REQUEST FOR PROPOSAL (RFP): A request for an offer from prospective offerors, which will indicate the general terms which are sought to be procured from the offeror. The RFP will specify the evaluation factors to be used and will contain or incorporate by reference other contractual terms and conditions applicable to the procurement.

RESPONSIBLE BIDDER/OFFEROR: An individual, company, firm, corporation, partnership or other organization having the capability in all respects to perform fully the contract requirements, and also having the moral and business integrity and reliability which will assure good faith performance, and having been prequalified, if required. (Reference paragraph 24, General Conditions and Instructions to Bidders).

RESPONSIVE BIDDER/OFFEROR: An individual, company, firm, corporation, partnership or other organization having submitted a bid which conforms in all material respects to the invitation for bid or request for proposal.

SERVICES: Any work performed by an independent contractor wherein the service rendered does not consist primarily of acquisition of equipment or materials, or the rental of equipment, materials and supplies.

SOLICITATION: The process of notifying prospective bidders that the County wishes to receive bids on a set of requirements to provide goods or services. The notification of County requirements may consist of public advertising (newspaper, County Web Site, or other electronic notification), the mailing of Notices of Solicitation, Invitation for Bid (IFB) or Request for Proposal (RFP), the public posting of notices, issuance of an Open Market Procurement (OMP), or telephone calls to prospective bidders.

STATE: Commonwealth of Virginia.

CONDITIONS OF BIDDING

3. BID FORMS-Unless otherwise specified in the solicitation, all bids shall be submitted on the forms provided, to include the bid Cover Sheet and Pricing Schedule(s), properly signed in ink in the proper spaces and submitted in a sealed envelope provided with the solicitation. The item pages of the Pricing Schedule which do not include any items for which a bid is required need not be included in the submission of a bid.

Should the bid prices and/or any other submissions differ on the copy of the submitted bid, the ORIGINAL copy shall prevail.

4. LATE BIDS & MODIFICATIONS OF BIDS-

- a. Any bid/modification received at the office designated in the solicitation after the exact time specified for receipt of the bid/modification is considered a late bid/modification. A late bid/modification will not be considered for award except under the following conditions only:
 1. It was sent by registered or certified mail not later than the fifth (5th) calendar date prior to the date specified for receipt of the bid/modification; or
 2. The bid/modification was sent by mail and it is determined by the County Purchasing Agent that the late receipt was due solely to mishandling by the County after receipt at the address specified in the solicitation.
- b. If the County declares administrative or liberal leave, scheduled bid openings or receipt of proposals will be extended to the next business day.
- c. The time of receipt of bids at the specified location is the time-date stamp of such location on the bid wrapper or other documentary evidence of receipt maintained by the specified location.
- d. A late hand-carried bid, or any other late bid not submitted by mail, shall not be considered for award.

5. WITHDRAWAL OF BIDS-

- a. A bidder for a public construction contract, other than a contract for construction or maintenance of public highways, may withdraw his or her bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid which shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder shall give notice in writing to the Purchasing Agent of his or her claim of right to withdraw his or her bid within two (2) business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice.
- b. A bidder for a contract other than for public construction may request withdrawal of his or her bid under the following circumstances:
 1. Requests for withdrawal of bids prior to opening of such bids shall be transmitted to the County Purchasing Agent in writing.

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2. Requests for withdrawal of bids after opening of such bids but prior to award shall be transmitted to the County Purchasing Agent, in writing, accompanied by full documentation supporting the request. If the request is based on a claim of error, documentation must show the basis of the error. Such documentation may take the form of supplier quotations, vendor work sheets, etc. If bid bonds were tendered with the bid, the County may exercise its right of collection.
 - c. No bid may be withdrawn under this paragraph when the result would be the awarding of the contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five percent.
 - d. If a bid is withdrawn under the authority of this paragraph, the lowest remaining bid shall be deemed to be the low bid.
 - e. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.
 - f. If the county denies the withdrawal of a bid under the provisions of this paragraph, it shall notify the bidder in writing stating the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder.
 - g. Work papers, documents, and materials submitted in support of a withdrawal of bids may be considered as trade secrets or proprietary information subject to the conditions of the Virginia Freedom of Information Act.
- 6. ERRORS IN BIDS-**When an error is made in extending total prices, the unit bid price will govern. Erasures in bids must be initialed by the bidder. Carelessness in quoting prices, or in preparation of bid otherwise, will not relieve the bidder. Bidders are cautioned to recheck their bids for possible error. Errors discovered after public opening cannot be corrected and the bidder will be required to perform if his or her bid is accepted.
- 7. MAILING OF BIDS-**All solicitation packages will contain a special mailing envelope which should be used to ensure proper handling of bids submitted. In the event that the bid contains bulky subject material, the special mailing envelope must be firmly affixed to any other wrapper being used and identified with the solicitation number, subject, and date/time of opening/closing.
- 8. COMPLETENESS-**To be responsive, a bid must include all information required by the solicitation.
- 9. ACCEPTANCE OF BIDS/BINDING 90 DAYS-**Unless otherwise specified, all formal bids submitted shall be binding for ninety (90) calendar days following bid opening date, unless extended by mutual consent of all parties.
- 10. CONDITIONAL BIDS-**Conditional bids are subject to rejection in whole or in part.
- 11. BIDS FOR ALL OR PART-**Unless otherwise specified by the County Purchasing Agent or by the bidder, the Purchasing Agent reserves the right to make award on all items in the aggregate or on any of the items on an individual basis, whichever is in the best interest of the County. A bidder may restrict his or her bid to consideration in the aggregate by so stating but shall name a single unit price on each item bid. Any bid in which the bidder names a total price for all the articles without quoting a unit price for each and every separate item may not be considered for award.
- 12. AREA BIDS-**For the purchase and delivery of certain goods and services the County may be divided into Areas (e.g., Areas I, II, III, and IV). When such goods and services are included in the Pricing Schedule, bidders may bid on all areas or an individual area. A map showing the areas of the County will be furnished with the solicitation when required.
- 13. TIME FOR RECEIVING BID-**Bids received prior to the time of opening will be securely kept, unopened. The representative of the Purchasing Agent assigned to open them will decide when the specified time has arrived, and no bid received thereafter will be considered, except as provided in paragraph 4, General Conditions and Instructions to Bidders. No responsibility will attach to the Purchasing Agent or his or her representative for the premature opening of a bid not properly addressed and identified. Unless specifically authorized in the solicitation, telegraphic, electronic, or facsimile bids/modifications will not be considered.
- 14. BID OPENING-**All bids received in response to an Invitation for Bid (IFB) will be opened at the date, time and place specified, read publicly, and made available for inspection as provided in paragraph 68, General Conditions and Instructions to Bidders. Tabulations of bids received are posted on the Department of Purchasing & Supply Management Bulletin Board as well as the County's web site: <http://www.fairfaxcounty.gov/dpsm/solic.htm>.
- Proposals received in response to a Request for Proposal (RFP) will be made available as provided in paragraph 68, General Conditions and Instructions to Bidders.
- 15. OMISSIONS & DISCREPANCIES-**Any items or parts of any equipment listed in this solicitation which are not fully described or are omitted from such specification, and which are clearly necessary for the completion of such equipment and its appurtenances, shall be considered a part of such equipment although not directly specified or called for in the specifications.
- Should a bidder find discrepancies or ambiguities in, or omissions from, the solicitation, including the drawings and/or specifications, he or she shall notify the Purchasing Agent at least five (5) days prior to the date set for the opening of bids. If necessary, the Purchasing Agent will send a written addendum for clarification to all bidders no later than three (3) days before the date set for opening of bids. Notifications regarding specifications will not be considered if received within five days of the date set for opening of bids.

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16. RESPONSE TO SOLICITATIONS-In the event a vendor cannot submit a bid on a solicitation, he or she is requested to return the solicitation cover sheet with an explanation as to why he or she is unable to bid on these requirements. Because of the large number of firms listed on the County's Procurement Opportunities List, it may be necessary to delete from this list the names of those persons, firms or corporations who fail to respond after having been invited to bid for three (3) successive solicitations. Such deletion will be made only after formal notification of the intent to remove the firm from the County's Procurement Opportunities List.

17. BIDDER INTERESTED IN MORE THAN ONE BID-If more than one bid is offered by any one party, either directly or by or in the name of his or her clerk, partner, or other persons, all such bids may be rejected. A party who has quoted prices on work, materials, or supplies to a bidder is not thereby disqualified from quoting prices to other bidders or firms submitting a bid directly for the work, materials or supplies.

18. TAX EXEMPTION-The County is exempt from the payment of any federal excise or any Virginia sales tax. The price bid must be net, exclusive of taxes. However, when under established trade practice any federal excise tax is included in the list price, a bidder may quote the list price and shall show separately the amount of federal tax, either as a flat sum or as a percentage of the list price, which shall be deducted by the County. Fairfax County's Federal Excise Tax Exemption Number is 54-74-0127K. Contractors located outside the Commonwealth of Virginia are advised that when materials are picked up by the County at their place of business, they may charge and collect their own local/state sales tax. Materials used in the performance of construction contracts are subject to Virginia Sales/Use Tax as described in Section 630-10-27J of the Virginia Retail Sales and Use Tax Regulations.

19. PROHIBITION AGAINST UNIFORM PRICING-The County Purchasing Agent shall encourage open and competitive bidding by all possible means and shall endeavor to obtain the maximum degree of open competition on all purchase transactions using the competitive sealed bidding, competitive negotiation, or open market methods of procurement. In submitting a bid each bidder shall, by virtue of submitting a bid, guarantee that he or she has not been a party with other bidders to an agreement to bid a fixed or uniform price. Violation of this implied guarantee shall render void the bids of participating bidders. Any disclosure to or acquisition by a competitive bidder, in advance of the opening of the bids, of the terms or conditions of the bid submitted by another competitor may render the entire proceedings void and may require re-advertising for bids.

SPECIFICATIONS

20. QUESTIONS CONCERNING SPECIFICATIONS-Any information relative to interpretation of specifications and drawings shall be requested of the Purchasing Agent, in writing, in ample time before the opening of bids. No inquiries, if received by the Purchasing Agent within five (5) days of the date set for the opening of bids, will be given any consideration. Any material interpretation of a specification, as determined by the County Purchasing Agent, will be expressed in the form of an addendum to the specification which will be sent to all prospective bidders no later than three (3) days before the date set for receipt of bids. Oral answers will not be authoritative.

21. BRAND NAME OR EQUAL ITEMS-Unless otherwise provided in the invitation for bid, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named; it conveys the general style, type, character, and quality of the article desired, and any article which the County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

22. FORMAL SPECIFICATIONS-When a solicitation contains a specification which states no substitutes, no deviation therefrom will be permitted and the bidder will be required to furnish articles in conformity with that specification.

The bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission, but shall fully complete every part as the true intent and meaning of the specifications and drawings. Whenever the mention is made of any articles, material, or workmanship to be in accordance with laws, ordinances, building codes, underwriter's codes, A.S.T.M. regulations or similar expressions, the requirements of these laws, ordinances, etc., shall be construed as to the minimum requirements of these specifications.

23. FEDERAL SPECIFICATIONS-Any Federal Specifications referred to herein may be obtained from the GSA Federal Supply Service Bureau - Specification Section, 470 East L'Enfant Plaza, S.W., Suite #8100, Washington, D.C. 20407 (Voice: 1-202-619-8925, Fax: 1-202-619-8978).

AWARD

24. AWARD OR REJECTION OF BIDS-The Purchasing Agent shall award the contract to the lowest responsive and responsible bidder complying with all provisions of the IFB, provided the bid price is reasonable and it is in the best interest of the County to accept it. Awards made in response to a RFP will be made to the highest qualified offeror whose proposal is determined, in writing, to be the most advantageous to the County taking into consideration the evaluation factors set forth in the RFP. The Purchasing Agent reserves the right to award a contract by individual items, in the aggregate, or in combination thereof, or to reject any or all bids and to waive any informality in bids received whenever such rejection or waiver is in the best interest of the County. Award may be made to as many bidders as deemed necessary to fulfill the anticipated requirements of Fairfax County. The Purchasing Agent also reserves the right to reject the bid of a bidder deemed to be a non-responsible bidder.

In determining the responsibility of a bidder, the following criteria will be considered:

- a. The ability, capacity and skill of the bidder to perform the contract or provide the service required;
- b. Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;

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- c. The character, integrity, reputation, judgment, experience and efficiency of the bidder;
- d. The quality of performance of previous contracts or services;
- e. The previous and existing compliance by the bidder with laws and ordinances relating to the contract or services;
- f. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- g. The quality, availability and adaptability of the goods or services to the particular use required;
- h. The ability of the bidder to provide future maintenance and service for the use of the subject of the contract;
- i. The number and scope of the conditions attached to the bid;
- j. Whether the bidder is in arrears to the County on debt or contract or is a defaulter on surety to the County or whether the bidder's County taxes or assessments are delinquent; and
- k. Such other information as may be secured by the County Purchasing Agent having a bearing on the decision to award the contract. If an apparent low bidder is not awarded a contract for reasons of nonresponsibility, the County Purchasing Agent shall so notify that bidder and shall have recorded the reasons in the contract file.

25. NOTICE OF ACCEPTANCE/CONTRACT DOCUMENTS-A written award (or Acceptance Agreement) mailed (or otherwise furnished) to the successful bidder within the time for acceptance specified in the solicitation shall be deemed to result in a binding contract. The following documents which are included in the solicitation shall be incorporated by reference in the resulting contract and become a part of said contract:

- a. County of Fairfax Solicitation Form/Acceptance Agreement (Cover Sheet) and other documents which may be incorporated by reference, if applicable,
- b. General Conditions and Instructions to Bidders,
- c. Special Provisions and Specifications,
- d. Pricing Schedule,
- e. Any addenda/amendments/Memoranda of Negotiations

26. TIE-BIDS – If all bids are for the same total amount or unit price (including authorized discounts and delivery times), and if the public interest will not permit the delay of readvertisement for bids, the County Purchasing Agent is authorized to award the contract to the resident Fairfax County tie bidder whose firm has its principal place of business in the County, or if there be none, to the resident Virginia tie bidder, or if there be none, to one of the tie bidders by drawing lots in public; or the County Purchasing Agent may purchase the goods or services in the open market except that the price paid shall not exceed the lowest contract bid price submitted for the same goods or services. The decision of the County to make award to one or more such bidders shall be final.

27. PROMPT PAYMENT DISCOUNT-

- a. Unless otherwise specified in the solicitation, prompt payment discounts requiring payment in less than fifteen (15) days will not be considered in evaluating a bid for award. However, even though not considered in the evaluation, such discounts will be taken if payment is to be made within the discount period.
- b. In connection with any discount offered, time will be computed from the date of delivery of the supplies to the carrier when delivery, inspection and acceptance are at the point of origin; or, from date of delivery, inspection and acceptance at destination; or, from date correct invoice or voucher is received in the office specified by the County, if the latter is later than the date of acceptance. In the event the bidder does not indicate a prompt payment discount, it shall be construed to mean NET 30 days.

For the purpose of earning the discount, payment is deemed to be made as of the date of mailing of the County check.

28. INSPECTION-ACCEPTANCE-For determining acceptance of supplies in accordance with the provisions of the prompt payment discount paragraph, inspection and acceptance shall be accomplished only after examination (including testing) of supplies and services to determine whether the supplies and services conform to the contract requirements. Acceptance shall occur only after receipt and inspection provided such inspection, as appropriate, is accomplished within a reasonable time.

29. DEFINITE BID QUANTITIES-Where definite quantities are specifically stated, acceptance will bind the County to order quantities specified and to pay for, at contract prices, all such supplies or services delivered that meet specifications and conditions of the contract. However, the County will not be required to accept delivery of any balances unordered, as of the contract expiration date, unless the Contractor furnished the Purchasing Agent with a statement of unordered balances not later than ten (10) days after the termination date of the contract.

30. REQUIREMENT BID QUANTITIES-On "Requirement" bids, acceptance will bind the County to pay for, at unit bid prices, only quantities ordered and delivered. Where the County specifies estimated quantities, the Contractor shall not be required to deliver more than ten (10) percent in excess of the estimated quantity of each item, unless otherwise agreed upon.

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CONTRACT PROVISIONS

31. TERMINATION OF CONTRACTS-Contracts will remain in force for full periods specified and/or until all articles ordered before date of termination shall have been satisfactorily delivered and accepted and thereafter until all requirements and conditions shall have been met, unless:

- a. Terminated prior to expiration date by satisfactory deliveries of entire contract requirements, or upon termination by the County for Convenience or Cause.
- b. Extended upon written authorization of the Purchasing Agent and accepted by Contractor, to permit ordering of unordered balances or additional quantities at contract prices and in accordance with contract terms.

32. TERMINATION FOR CONVENIENCE-A contract may be terminated in whole or in part by the County in accordance with this clause whenever the County Purchasing Agent shall determine that such a termination is in the best interest of the County. Any such termination shall be effected by delivery to the Contractor at least five (5) working days prior to the termination date of a Notice of Termination specifying the extent to which performance shall be terminated and the date upon which termination becomes effective. An equitable adjustment in the contract price shall be made for completed service, but no amount shall be allowed for anticipated profit on unperformed services.

33. TERMINATION OF CONTRACT FOR CAUSE-

- a. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his or her obligations under this contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this contract, the County shall thereupon have the right to terminate, specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event all finished or unfinished documents, data, studies, surveys, drawings, maps, models, and reports prepared by the Contractor under the contract shall, at the option of the County, become its property and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents.
- b. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by the County by virtue of any breach of contract by the Contractor for the purpose of set off until such time as the exact amount of damages due to the County from the Contractor is determined.

34. CONTRACT ALTERATIONS-No alterations in the terms of a contract shall be valid or binding upon the County unless made in writing and signed by the Purchasing Agent or his or her authorized agent.

35. SUBLETTING OF CONTRACT OR ASSIGNMENT OF CONTRACT FUNDS-It is mutually understood and agreed that the Contractor shall not assign, transfer, convey, sublet or otherwise dispose of his or her contractual duties to any other person, firm or corporation, without the previous written consent of the Purchasing Agent. If the Contractor desires to assign his or her right to payment of the contract, Contractor shall notify the Purchasing Agent immediately, in writing, of such assignment of right to payment. In no case shall such assignment of contract relieve the Contractor from his or her obligations or change the terms of the contract.

36. FUNDING-A contract shall be deemed binding only to the extent of appropriations available to each Agency for the purchase of goods and services.

37. DELIVERY/SERVICE FAILURES-Failure of a Contractor to deliver goods or services within the time specified, or within reasonable time as interpreted by the Purchasing Agent, or failure to make replacements/corrections of rejected articles/services when so requested, immediately or as directed by the Purchasing Agent, shall constitute authority for the Purchasing Agent to purchase in the open market articles/services of comparable grade/quality to replace the services, articles rejected, and/or not delivered. On all such purchases, the Contractor shall reimburse the County, within a reasonable time specified by the Purchasing Agent, for any expense incurred in excess of contract prices. Such purchases shall be deducted from the contract quantities if applicable. Should public necessity demand it, the County reserves the right to use or consume articles delivered or services performed which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Agent.

38. NON-LIABILITY-The Contractor shall not be liable in damages for delay in shipment or failure to deliver when such delay or failure is the result of fire, flood, strike, the transportation carrier, act of God, act of Government, act of an alien enemy or by any other circumstances which, in the Purchasing Agent's opinion, are beyond the control of the Contractor. Under such circumstances, however, the Purchasing Agent may, at his or her discretion, cancel the contract.

39. NEW GOODS, FRESH STOCK-All Contractors, unless otherwise specifically stated, shall provide new commodities, fresh stock, latest model, design or pack.

40. NON-DISCRIMINATION-During the performance of this contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such Contractor is an equal opportunity employer.

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- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- d. The Contractor will include the provisions of the foregoing paragraphs a, b, and c above in every subcontract or purchase order of over \$10,000 so that the provisions will be binding upon each subcontractor or vendor.
- e. Contractor and Subcontractor hereunder shall, throughout the term of this contract, comply with the Human Rights Ordinance, Chapter 11 of the Code of the County of Fairfax, Virginia, as reenacted or amended.

41. OFFICE OF SMALL BUSINESS-

- a. It is the policy of the County of Fairfax as declared by the Fairfax County Board of Supervisors' adoption of a Small and Minority Business Enterprise Program, April 6, 1981, that Fairfax County and its employees undertake every effort to increase opportunity for utilization of small or minority businesses in all aspects of procurement to the maximum extent feasible.
- b. In connection with the performance of this contract, the Contractor agrees to use his or her best effort to carry out this policy and to insure that small and minority businesses shall have the maximum practicable opportunity to compete for subcontract work under this contract consistent with the efficient performance of this contract.
- c. As used in this contract the term "small business" means a corporation, partnership, or sole proprietorship, or other legal entity formed for the purpose of making a profit, which is independently owned and operated, has either fewer than 100 employees, or less than \$1,000,000 in annual receipts.
- d. As used in this contract, the term "minority business" means a business enterprise that is at least 51 percent owned and controlled by a minority person or persons. Such persons include African Americans, Hispanic Americans, Asian Americans, American Indians, Eskimos and Aleuts; women regardless of race or ethnicity; and persons with a physical impairment that substantially limits one or more of the major life activities of such individuals, a record of such impairment, or who are regarded as having such an impairment.
- e. Contractors may rely on oral or written representations by subcontractors regarding their status as small and/or minority business enterprises in lieu of independent investigation.
- f. Where Federal grants or monies are involved it is the policy of Fairfax County, through its agents and employees, to comply with the requirements set forth in the U.S. Office of Management and Budget Circular No. A-102, uniform administrative requirements for Grants and Cooperative Agreements with State and Local Governments, as they pertain to small and minority business utilization.

42. GUARANTEES & WARRANTIES-All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to the Purchasing Agent before final payment on the contract is made. Unless otherwise stated, manufacturer's standard warranty applies.

43. PRICE REDUCTION-If at any time after the date of the bid the Contractor makes a general price reduction in the comparable price of any material covered by the contract to customers generally, an equivalent price reduction based on similar quantities and/or considerations shall apply to this contract for the duration of the contract period (or until the price is further reduced). Such price reduction shall be effective at the same time and in the same manner as the reduction in the price to customers generally. For purpose of this provision, a "general price reduction" shall mean any horizontal reduction in the price of an article or service offered (1) to Contractor's customers generally, or (2) in the Contractor's price schedule for the class of customers, i.e., wholesalers, jobbers, retailers, etc., which was used as the basis for bidding on this solicitation. An occasional sale at a lower price, or sale of distressed merchandise at a lower price, would not be considered a "general price reduction" under this provision. The Contractor shall submit his or her invoice at such reduced prices indicating on the invoice that the reduction is pursuant to the "Price Reduction" provision of the contract documents. The Contractor in addition will within ten days of any general price reduction notify the Purchasing Agent of such reduction by letter. FAILURE TO DO SO MAY REQUIRE TERMINATION OF THE CONTRACT. Upon receipt of any such notice of a general price reduction, all ordering offices will be duly notified by the Purchasing Agent.

The Contractor, if requested, shall furnish, within ten days after the end of the contract period, a statement certifying either (1) that no general price reduction, as defined above, was made after the date of the bid, or (2) if any such general price reductions were made, that as provided above, they were reported to the Purchasing Agent within ten (10) days and ordering offices were billed at the reduced prices. Where one or more such general price reductions were made, the statement furnished by the Contractor shall include with respect to each price reduction (1) the date when notice of any such reduction was issued, (2) the effective date of the reduction, and (3) the date when the Purchasing Agent was notified of any such reduction.

44. CHANGES-Should it become proper or necessary in the execution of this contract to make any change in design, or to make any alterations which will increase the expense, the Purchasing Agent shall determine an equitable adjustment.

No payment shall be made to the Contractor for any extra material or services, or of any greater amount of money than stipulated to be paid in the contract, unless some changes in or additions to the contract requiring additional outlay by the Contractor shall first have been expressly authorized and ordered in writing by contract amendment or otherwise furnished by the Purchasing Agent.

45. PLACING OF ORDERS-Orders against contracts will be placed with the Contractor on a Purchase Order (or Procurement Card) executed and released by the Purchasing Agent or his or her designee. The Purchase Order must bear the appropriate contract number and date. Where Blanket Purchase Agreements (BPAs) have been executed and a Blanket Purchase Order has

General Conditions and Instructions to Bidders

been released by the Purchasing Agent, telephonic orders may be placed directly with the Contractor by authorized personnel in the ordering Agency.

DELIVERY PROVISIONS

46. SHIPPING INSTRUCTIONS - CONSIGNMENT-Unless otherwise specified in the solicitation each case, crate, barrel, package, etc., delivered under the contract must be plainly stenciled or securely tagged, stating the Contractor's name, purchase order number, and delivery address as indicated in the order. Where shipping containers are to be used, each container must be marked with the purchase order number, name of the Contractor, the name of the item, the item number, and the quantity contained therein. Deliveries must be made within the hours of 8:00 AM - 3:00 PM. Deliveries at any other time will not be accepted unless specific arrangements have been previously made with the storekeeper at the delivery point. No deliveries will be accepted on Saturdays, Sundays and holidays, unless previous arrangements have been made. It shall be the responsibility of the Contractor to insure compliance with these instructions for items that are drop-shipped.

47. RESPONSIBILITY FOR SUPPLIES TENDERED-Unless otherwise specified in the solicitation, the Contractor shall be responsible for the materials or supplies covered by the contract until they are delivered at the designated point, but the Contractor shall bear all risk on rejected materials or supplies after notice of rejection. Rejected materials or supplies must be removed by and at the expense of the Contractor promptly after notification of rejection, unless public health and safety require immediate destruction or other disposal of rejected delivery. If rejected materials are not removed by the Contractor within ten (10) days after date of notification, the County may return the rejected materials or supplies to the Contractor at his or her risk and expense or dispose of them as its own property.

48. INSPECTIONS-Inspection and acceptance of materials or supplies will be made after delivery at destinations herein specified unless otherwise stated. If inspection is made after delivery at destination herein specified, the County will bear the expense of inspection except for the value of samples used in case of rejection. Final inspection shall be conclusive except in regard to latent defects, fraud or such gross mistakes as to amount to fraud. Final inspection and acceptance or rejection of the materials or supplies will be made as promptly as practicable, but failure to inspect and accept or reject materials or supplies shall not impose liability on the County for such materials or supplies as are not in accordance with the specifications.

49. COMPLIANCE-Delivery must be made as ordered and in accordance with the solicitation or as directed by the Purchasing Agent when not in conflict with the bid. The decision of the Purchasing Agent as to reasonable compliance with delivery terms shall be final. Burden of proof of delay in receipt of goods by the purchaser shall rest with the Contractor. Any request for extension of time of delivery from that specified must be approved by the Purchasing Agent, such extension applying only to the particular item or shipment affected. Should the Contractor be delayed by the County, there shall be added to the time of completion a time equal to the period of such delay caused by the County. However, the contractor shall not be entitled to claim damages or extra compensation for such delay or suspension. These conditions may vary for construction contracts. See Special Provisions for the individual solicitation.

50. POINT OF DESTINATION-All materials shipped to the County must be shipped F.O.B. DESTINATION unless otherwise stated in the contract or purchase order. The materials must be delivered to the "Ship to" address indicated on the purchase order.

51. ADDITIONAL CHARGES-Unless bought F.O.B. "shipping point" and Contractor prepays transportation, no delivery charges shall be added to invoices except when express delivery is authorized and substituted on orders for the method specified in the contract. In such cases, difference between freight or mail and express charges may be added to invoice.

52. METHOD AND CONTAINERS-Unless otherwise specified, goods shall be delivered in commercial packages in standard commercial containers, so constructed as to ensure acceptance by common or other carrier for safe transportation to the point of delivery. Containers become the property of the County unless otherwise specified by bidder.

53. WEIGHT CHECKING-Deliveries shall be subject to re-weighing over official sealed scales designated by the County. Payments shall be made on the basis of net weight of materials delivered. Normal shrinkage may be allowed in such instances where shrinkage is possible. Net weights only, exclusive of containers or wrapping, shall be paid for by the County.

54. DEMURRAGE AND RE-SPOTTING-The County will be responsible for demurrage charges only when such charges accrue because of the County's negligence in unloading the materials. The County will pay railroad charges due to the re-spotting of cars, only when such re-spotting is ordered by the County.

55. REPLACEMENT-Materials or components that have been rejected by the Purchasing Agent, in accordance with the terms of a contract, shall be replaced by the Contractor at no cost to the County.

56. PACKING SLIPS OR DELIVERY TICKETS-All shipments shall be accompanied by Packing Slips or Delivery Tickets and shall contain the following information for each item delivered:

1. The Purchase Order Number,
2. The Name of the Article and Stock Number (Supplier's),
3. The Fairfax County Identification Number (FCIN), if specified in the order,
4. The Quantity Ordered,
5. The Quantity Shipped,
6. The Quantity Back Ordered,
7. The Name of the Contractor.

Contractors are cautioned that failure to comply with these conditions shall be considered sufficient reason for refusal to accept the goods.

General Conditions and Instructions to Bidders

BILLING

57. BILLING-Billing for the Fairfax County Public Schools and for County agencies: Unless otherwise specified on the contract or purchase order, invoices are to be submitted, in DUPLICATE, for each purchase order immediately upon completion of the shipment or services. If shipment is made by freight or express, the original Bill of Lading, properly receipted, must be attached to the invoice. Invoices should be mailed to the "BILL TO" address on the P.O. or to the appropriate address specified below:

- a. Fairfax County Public Schools
Assistant Superintendent - Financial Services
10700 Page Avenue
Fairfax, Virginia 22030
- b. County of Fairfax
Department of Finance
P. O. Box 1327, Drawer A
Fairfax, Virginia 22035
- c. Fairfax County Redevelopment and Housing Authority
Finance Division
3700 Pender Drive, Suite 300
Fairfax, Virginia 22030-7444
- d. Fairfax County Park Authority
12055 Government Center Parkway
Suite 927
Fairfax, Virginia 22035-1118

PAYMENTS

58. PAYMENT-Payment shall be made after satisfactory performance of the contract, in accordance with all of the provisions thereof, and upon receipt of a properly completed invoice. Fairfax County reserves the right to withhold any or all payments or portions thereof for Contractor's failure to perform in accordance with the provision of the contract or any modifications thereto.

59. PARTIAL PAYMENTS-Unless otherwise specified, partial payments will be made upon acceptance of materials or services so invoiced if in accordance with completion date. However, up to 5 percent (5%) of the value of the entire order may be retained until completion of contract.

60. PAYMENT FOR EQUIPMENT, INSTALLATION, AND TESTING-When equipment requires installation (which shall also be interpreted to mean erection and/or setting up or placing in position, service, or use) and test, and where such installation or testing is delayed, payment may be made on the basis of 50% of the contract price when such equipment is delivered on the site. A further allowance of 25% may be made when the equipment is installed and ready for test. The balance shall be paid after the equipment is tested and found to be satisfactory. If the equipment must be tested, but installation is not required to be made by the Contractor or if the equipment must be installed but testing is not required, payment may be made on the basis of 75% at the time of delivery and the balance shall be paid after satisfactory test or installation is completed.

GENERAL

61. GENERAL GUARANTY-Contractor agrees to:

- a. Save the County, its agents and employees harmless from liability of any nature or kind for the use of any copyrighted or uncopyrighted composition; secret process, patented or unpatented; invention; article or appliance furnished or used in the performance of a contract for which the Contractor is not the patentee, assignee, licensee or owner.
- b. Protect the County against latent defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.
- c. Furnish adequate protection against damage to all work and to repair damages of any kind to the building or equipment, to his or her own work or to the work of other contractors, for which his or her workers are responsible.
- d. Pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the County.
- e. Protect the County from loss or damage to County owned property while it is in the custody of the Contractor.

62. SERVICE CONTRACT GUARANTY-Contractor agrees to:

- a. Furnish services described in the solicitation and resultant contract at the times and places and in the manner and subject to conditions therein set forth provided that the County may reduce the said services at any time.
- b. Enter upon the performance of services with all due diligence and dispatch, assiduously press to its complete performance, and exercise therein the highest degree of skill and competence.

General Conditions and Instructions to Bidders

- c. All work and services rendered in strict conformance to all laws, statutes, and ordinances and the applicable rules, regulations, methods and procedures of all government boards, bureaus, offices and other agents.
- d. Allow services to be inspected or reviewed by an employee of the County at any reasonable time and place selected by the County. Fairfax County shall be under no obligation to compensate Contractor for any services not rendered in strict conformity with the contract.
- e. Stipulate that the presence of a County Inspector shall not lessen the obligation of the Contractor for performance in accordance with the contract requirements, or be deemed a defense on the part of the Contractor for infraction thereof. The Inspector is not authorized to revoke, alter, enlarge, relax, or release any of the requirements of the contract documents. Any omission or failure on the part of the Inspector to disapprove or reject any work or material shall not be construed to be an acceptance of any such defective work or material. Notification of an omission or failure will be documented by the Purchasing Agent.

63. INDEMNIFICATION-Contractor shall indemnify, keep and save harmless the County, its agents, officials, employees and volunteers against claims of injuries, death, damage to property, patent claims, suits, liabilities, judgments, cost and expenses which may otherwise accrue against the County in consequence of the granting of a contract or which may otherwise result therefrom, if it shall be determined that the act was caused through negligence or error, or omission of the Contractor or his or her employees, or that of the subcontractor or his or her employees, if any; and the Contractor shall, at his or her own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith; and if any judgment shall be rendered against the County in any such action, the Contractor shall, at his or her own expense, satisfy and discharge the same. Contractor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County as herein provided.

64. OFFICIALS NOT TO BENEFIT-

- a. Each bidder or offeror shall certify, upon signing a bid or proposal, that to the best of his or her knowledge no Fairfax County official or employee having official responsibility for the procurement transaction, or member of his or her immediate family, has received or will receive any financial benefit of more than nominal or minimal value relating to the award of this contract. If such a benefit has been received or will be received, this fact shall be disclosed with the bid or proposal or as soon thereafter as it appears that such a benefit will be received. Failure to disclose the information prescribed above may result in suspension or debarment, or rescission of the contract made, or could affect payment pursuant to the terms of the contract.
- b. Whenever there is reason to believe that a financial benefit of the sort described in paragraph "a" has been or will be received in connection with a bid, proposal or contract, and that the contractor has failed to disclose such benefit or has inadequately disclosed it, the County Executive, as a prerequisite to payment pursuant to the contract, or at any other time, may require the Contractor to furnish, under oath, answers to any interrogatories related to such possible benefit.
- c. In the event the bidder or offeror has knowledge of benefits as outlined above, this information should be submitted with the bid or proposal. If the above does not apply at time of award of contract and becomes known after inception of a contract, the bidder or offeror shall address the disclosure of such facts to the Fairfax County Purchasing Agent, 12000 Government Center Parkway, Suite 427, Fairfax, Virginia 22035-0013. Relevant Invitation/Request for Proposal Number (see cover sheet) should be referenced in the disclosure.

65. LICENSE REQUIREMENT-All firms doing business in Fairfax County, shall obtain a license as required by Chapter 4, Article 7, of The Code of the County of Fairfax, Virginia, as amended, entitled "Business, Professional and Occupational Licensing (BPOL) Tax." Questions concerning the BPOL Tax should be directed to the Department of Tax Administration, telephone (703) 222-8234 or visit: http://www.fairfaxcounty.gov/dta/business_tax.htm. The BPOL Tax number must be indicated in the space provided on the Cover Sheet, "Fairfax License Tax No." when appropriate.

66. REGISTERING OF CORPORATIONS-Any foreign corporation transacting business in Virginia shall secure a certificate of authority as required by Section 13.1-757 of the Code of Virginia, from the State Corporation Commission, Post Office Box 1197, Richmond, Virginia 23209. The Commission may be reached at (804) 371-9733. The consequences of failing to secure a certificate of authority are set forth in Virginia Code Section 13.1-758.

67. COVENANT AGAINST CONTINGENT FEES-The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For violation of this warranty, the County shall have the right to terminate or suspend this contract without liability to the County or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

68. VIRGINIA FREEDOM OF INFORMATION ACT-All proceedings, records, contracts and other public records relating to procurement transactions shall be open to the inspection of any citizen, or any interested person, firm or corporation, in accordance with the Virginia Freedom of Information Act except as provided below:

- a. Cost estimates relating to a proposed procurement transaction prepared by or for a public body shall not be open to public inspection.
- b. Any competitive sealed bidding bidder, upon request, shall be afforded the opportunity to inspect bid records within a reasonable time after the opening of all bids but prior to award, except in the event that the County decides not to accept

General Conditions and Instructions to Bidders

any of the bids and to reopen the contract. Otherwise, bid records shall be open to public inspection only after award of the contract. Any competitive negotiation offeror, upon request, shall be afforded the opportunity to inspect proposal records within a reasonable time after the evaluation and negotiations of proposals are completed but prior to award except in the event that the County decides not to accept any of the proposals and to reopen the contract. Otherwise, proposal records shall be open to the public inspection only after award of the contract except as provided in paragraph "c" below. Any inspection of procurement transaction records under this section shall be subject to reasonable restrictions to ensure the security and integrity of the records.

- c. Trade secrets or proprietary information submitted by a bidder, offeror or contractor in connection with a procurement transaction or prequalification application submitted pursuant to the prequalification process identified in the Special Provisions, shall not be subject to the Virginia Freedom of Information Act; however, the bidder, offeror or contractor shall (i) invoke the protections of this section prior to or upon submission of the data or other materials, (ii) identify the data or other materials to be protected, and (iii) state the reasons why protection is necessary.
- d. Nothing contained in this section shall be construed to require the County, when procuring by "competitive negotiation" (Request for Proposal), to furnish a statement of the reasons why a particular proposal was not deemed to be the most advantageous to the County.

BIDDER/CONTRACTOR REMEDIES

69. INELIGIBILITY-

- a. Any person or firm suspended or debarred from participation in County procurement shall be notified in writing by the County Purchasing Agent.
 - 1. The Notice of Suspension shall state the reasons for the actions taken and such decision shall be final unless the person or firm appeals within thirty (30) days of receipt of the Notice by instituting legal action as provided in the Code of Virginia.
 - 2. The Notice of Debarment shall state the reasons for the actions taken and the decision shall be final unless the person or firm appeals within thirty (30) days of receipt of the notice by instituting legal action as provided in the Code of Virginia.
- b. The County Purchasing Agent shall have the authority to suspend or debar a person or firm from bidding on any contract for the causes stated below:
 - 1. Conviction for commission of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract;
 - 2. Conviction under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a County contractor;
 - 3. Conviction under the state or federal antitrust statutes arising out of the submission of bids or proposals;
 - 4. Violation of contract provisions, as set forth below, of a character which is regarded by the County Purchasing Agent to be so serious as to justify suspension or debarment action:
 - (a) failure without good cause to perform in accordance with the specifications or within the time limit provided in the contract; or
 - (b) a recent record of failure to perform or of unsatisfactory performance in accordance with the terms of one or more contracts; provided, that failure to perform or unsatisfactory performance caused by acts beyond the control of the contractor shall not be considered to be a basis for suspension or debarment;
 - 5. Any other cause the County Purchasing Agent determines to be so serious and compelling as to affect responsibility as a contractor, such as debarment by another governmental entity for any cause listed herein, or because of prior reprimands;
 - 6. The contractor has abandoned performance or been terminated for default on any other Fairfax County project;
 - 7. The contractor is in default on any surety bond or written guarantee on which Fairfax County is an obligee.
- c. If, upon appeal, it is determined that the action taken by the County Purchasing Agent was arbitrary or capricious, or not in accordance with the Constitution of Virginia, statutes or regulations, the sole relief available to the person or firm shall be restoration of eligibility. The person or firm may not institute legal action until all statutory requirements have been met.

70. APPEAL OF DENIAL OF WITHDRAWAL OF BID-

- a. A decision denying withdrawal of a bid submitted by a bidder or offeror shall be final and conclusive unless the bidder appeals the decision within ten (10) days after receipt of the decision by instituting legal action as provided in the Code of Virginia. The bidder or offeror may not institute legal action until all statutory requirements have been met.
- b. If no bid bond was posted, a bidder refused withdrawal of bid under the provisions of Article 2, Section 4 a.9, of the Fairfax

General Conditions and Instructions to Bidders

County Purchasing Resolution, prior to appealing, shall deliver to the County a certified check or cash bond in the amount of the difference between the bid sought to be withdrawn and the next low bid. Such security shall be released only upon a final determination that the bidder was entitled to withdraw the bid.

- c. If, upon appeal, it is determined that the decision refusing withdrawal of the bid was arbitrary or capricious, the sole relief shall be withdrawal of the bid.

71. APPEAL OF DETERMINATION OF NONRESPONSIBILITY-

- a. Any bidder who, despite being the apparent low bidder, is determined not to be a responsible bidder for a particular County contract shall be notified in writing by the County Purchasing Agent. Such notice shall state the basis for the determination, which shall be final unless the bidder appeals the decision within ten (10) days of receipt of the notice by instituting legal action as provided in the Code of Virginia. The bidder may not institute legal action until all statutory requirements have been met.
- b. If, upon appeal, it is determined that the decision of the County Purchasing Agent was arbitrary or capricious and the award for the particular County contract in question has not been made, the sole relief available to the bidder shall be a finding that the bidder is a responsible bidder for the County contract in question. Where the award has been made and performance has begun, the County may declare the contract void upon a finding that this action is in the best interest of the public. Where a contract is declared void, the performing contractor shall be compensated for the cost of performance up to the time of such declaration. In no event shall the performing contractor be entitled to lost profits.

72. PROTEST OF AWARD OR DECISION TO AWARD-

- a. Any bidder or offeror may protest the award or decision to award a contract by submitting a protest in writing to the County Purchasing Agent, or an official designated by the County of Fairfax, no later than ten (10) days after the award or the announcement of the decision to award, whichever occurs first. Any potential bidder or offeror on a contract negotiated on a sole source or emergency basis who desires to protest the award or decision to award such contract shall submit such protest in the same manner no later than ten days after posting or publication of the notice of such contract as provided in Article 2, Section 2, of the Fairfax County Purchasing Resolution. However, if the protest of any actual or potential bidder or offeror depends in whole or in part upon information contained in public records pertaining to the procurement transaction which are subject to inspection under Article 2, Section 4e of the Fairfax County Purchasing Resolution, then the time within which the protest must be submitted shall expire ten days after those records are available for inspection by such bidder or offeror under Article 2, Section 4e, or at such later time as provided herein. No protest shall lie for a claim that the selected bidder or offeror is not a responsible bidder or offeror. The written protest shall include the basis for the protest and the relief sought. The County Purchasing Agent shall issue a decision in writing within ten (10) days of the receipt of the protest stating the reasons for the action taken. This decision shall be final unless the bidder or offeror appeals within ten (10) days of receipt of the written decision by instituting legal action as provided in the Code of Virginia.
- b. If prior to award it is determined that the decision to award is arbitrary or capricious, then the sole relief shall be a finding to that effect. The County Purchasing Agent shall cancel the proposed award or revise it to comply with the law. If, after an award, it is determined that an award of a contract was arbitrary or capricious, then the sole relief shall be as hereinafter provided. Where the award has been made but performance has not begun, the performance of the contract may be declared void by the County. Where the award has been made and performance has begun, the County Purchasing Agent may declare the contract void upon a finding that this action is in the best interest of the County. Where a contract is declared void, the performing contractor shall be compensated for the cost of performance at the rate specified in the contract up to the time of such declaration. In no event shall the performing contractor be entitled to lost profits.
- c. Pending final determination of a protest or appeal, the validity of a contract awarded and accepted in good faith in accordance with this article shall not be affected by the fact that a protest or appeal has been filed.
- d. An award need not be delayed for the period allowed a bidder or offeror to protest, but in the event of a timely protest, no further action to award the contract will be taken unless there is a written determination that proceeding without delay is necessary to protect the public interest or unless the bid or offer would expire.

73. CONTRACTUAL DISPUTES-

- a. Any dispute concerning a question of fact as a result of a contract with the County which is not disposed of by agreement shall be decided by the County Purchasing Agent, who shall reduce his decision to writing and mail or otherwise forward a copy thereof to the contractor within thirty (30) days. The decision of the County Purchasing Agent shall be final and conclusive unless the contractor appeals within six (6) months of the date of the final written decision by instituting legal action as provided in the Code of Virginia. A contractor may not institute legal action, prior to receipt of the public body's decision on the claim, unless the public body fails to render such decision within the time specified.
- b. Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty days after final payment; however, written notice of the contractor's intention to file such claim shall have been given at the time of the occurrence or beginning of the work upon which the claim is based. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after completion and acceptance of the work or acceptance of the goods. Pendency of claims shall not delay payment of amounts agreed due in the final payment.

74. LEGAL ACTION-No bidder, offeror, potential bidder or offeror, or contractor shall institute any legal action until all statutory requirements have been met.

General Conditions and Instructions to Bidders

75. COOPERATIVE PURCHASING-When stated specifically in the solicitation, the County Purchasing Agent of Fairfax County may participate in, sponsor, conduct or administer a cooperative procurement agreement with one or more other public bodies, or agencies of the United States, for the purpose of combining requirements to increase efficiency or reduce administrative expenses. Nothing herein shall prohibit the assessment or payment by direct or indirect means of any administrative fee that will allow for participation in any such arrangement.

76. PROFESSIONAL AFFILIATION-The Department of Purchasing & Supply Management holds membership in the National Institute of Governmental Purchasing, Inc., a non-profit, educational and technical organization that includes among its goals and objectives the study, discussion, and recommendation of improvements in governmental purchasing and the interchange of ideas and experiences on local state, and national governmental purchasing problems.

77. DRUG FREE WORKPLACE-During the performance of a contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in conjunction with a specific contract awarded to a contractor in accordance with this section, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

APPROVED:

/S/ David Bobzien
COUNTY ATTORNEY

/S/ Cathy Muse
COUNTY PURCHASING AGENT

RFP CHECKLIST

NAME OF OFFEROR: _____

ADDRESS: _____

E-MAIL ADDRESS: _____

Name and addresses of both service and fiscal representatives (Key Personnel) who would handle this account.

Service Representative: _____
Telephone Number: () _____

Fiscal Representative: _____
Telephone Number: () _____

EMAIL Address: _____

A detailed description of cost elements must be submitted as part of the business proposal.

The following documents which are included in this Solicitation shall be incorporated by reference in the resulting contract and become a part of said contract:

- A. County of Fairfax Acceptance Agreement (Cover Sheet, DPSM32)
- B. Special Provisions & Specifications,
- C. Appendix A (General Conditions and Instructions to Bidders)
- D. Appendix B (RFP Checklist, BPOL Form, COG Rider, SBE Schedule, Subcontractor's Notification Form).
- E. Listing of Potential Subcontractors - See web page
(www.fairfaxcounty.gov/dpsm/solic.htm)

Typed name and title

Signature

Date of Submission

BUSINESS, PROFESSIONAL AND OCCUPATIONAL LICENSE

All firms located or operating in Fairfax County must obtain a Business, Professional and Occupational License (BPOL) as required by Chapter 4, Article 7, of the Code of the County of Fairfax, Virginia. In order for the Department of Tax Administration to determine your BPOL requirement prior to contract award, it is necessary for you to provide the following information:

- If you currently have a Fairfax County business license, please submit a copy with your proposal.
- Do you have an office in:

Virginia	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fairfax County	<input type="checkbox"/> Yes	<input type="checkbox"/> No
- Date business began/will begin work in Fairfax County

A detailed description of the business activity that will take place in Fairfax County. If business is located outside of Fairfax County, give the percentage of work actually to be done in the County

[illegible]

Signature

Date _____

For Office Use Only:

- Company name and address: _____
- Amount of Contract Award \$ _____
- Fairfax County Agency: _____
- Agency Contact _____ Phone No. _____
- Company Contact _____ Phone No. _____
- Nature of business _____

YOU MUST RETURN THIS FORM OR A COPY OF CURRENT FAIRFAX COUNTY BUSINESS LICENSE IN PROPOSAL. CONTRACT AWARD SHALL NOT BE MADE WITHOUT IT.

YES	NO	JURISDICTIONS	YES	JURISDICTIONS
		Alexandria Public Schools		Madison County Public Schools
		Alexandria Sanitation Authority		Manassas Park Public Schools
		Alexandria, Virginia		Manassas, Virginia
		Arlington County, Virginia		Manassas City Public Schools
		Arlington Public Schools		Maryland-National Capital Park & Planning Commission
		Bowie, Maryland		Metropolitan Washington Airports Authority
		Charles County, Maryland		Metropolitan Washington Council of Governments
		Chevy Chase Village, MD		Montgomery Community College
		City of Fairfax, Virginia		Montgomery County, Maryland
		Clark County Administrative Services		Prince George's County Public Schools
		College Park, Maryland		Montgomery County Public Schools
		Culpeper County Public Schools		Northern Virginia Community College
		District of Columbia		Northern Virginia Regional Commission
		District of Columbia Schools		Orange County Public Schools
		Fairfax County Water Authority		Prince George's County, Maryland
		Falls Church City Public Schools		Prince William County, Virginia
		Falls Church, Virginia		Prince William County Public Schools
		Fauquier County Schools		Prince William County Service Authority
		Frederick City, Maryland		Rappahannock County Public Schools
		Frederick County Maryland		Rockville, Maryland
		Frederick County Schools		Shenandoah County Public Schools
		Gaithersburg, Maryland		Stafford County Public Schools
		Greenbelt, Maryland		Takoma Park, Maryland
		Herndon, Virginia		Town of Vienna, Virginia
		Loudoun County Sanitation Authority		Upper Occoquan Sewage Authority
		Loudoun County, Public Schools		Washington Suburban Sanitary Commission
		Loudoun County, Virginia		Virginia Railway Express
				Washington Metropolitan Area Transit Authority

Vendor Name

SBE SCHEDULE

The Fairfax County Board of Supervisors has established the following definitions for small and minority businesses:

(b) **Small Business** – A corporation, partnership, sole proprietorship, or other legal entity formed for the purpose of making profit, which is independently owned and operated, has either fewer than 100 employees or less than \$1,000,000 in annual gross sales.

Minority Business – A business enterprise that is at least 51% owned and controlled by a minority person or persons. Such persons include African Americans, Hispanic Americans, Asian Americans, American Indians, Eskimos and Aleuts; Women (regardless of race or ethnicity); and persons with a physical or mental impairment that substantially limits one or more of the major life activities of such individuals, a record of such impairment, or who are regarded as having such an impairment.

Step 1: Select all categories that apply to your business from this group.

✓	0 Business Partner Classification Code/Category
<input type="checkbox"/> (8)	Disabled Person Owned
<input type="checkbox"/> (9)	Public Body/Government Agency
<input type="checkbox"/> (D)	Non Profit/Not-for-Profit
	Sheltered Work Shop (work oriented rehabilitative facility with a controlled work environment and individual goals that utilizes work experience and related services assisting the handicapped person to progress toward normal living and productive vocational status)

Step 2: Select the one category that applies to your business from the table below.

SMALL BUSINESS	LARGE BUSINESS	OWNERSHIP
<input type="checkbox"/> (B)	<input type="checkbox"/> (Y)	Non-Minority
<input type="checkbox"/> (C)	<input type="checkbox"/> (A)	Women-Owned
<input type="checkbox"/> (G)	<input type="checkbox"/> (E)	African American Owned
<input type="checkbox"/> (H)	<input type="checkbox"/> (F)	African American Women-Owned
<input type="checkbox"/> (K)	<input type="checkbox"/> (I)	Hispanic American Owned
<input type="checkbox"/> (L)	<input type="checkbox"/> (J)	Hispanic American Women-Owned
<input type="checkbox"/> (O)	<input type="checkbox"/> (M)	Asian American Owned
<input type="checkbox"/> (P)	<input type="checkbox"/> (N)	Asian American Women-Owned
<input type="checkbox"/> (S)	<input type="checkbox"/> (Q)	American Indian Owned
<input type="checkbox"/> (T)	<input type="checkbox"/> (R)	American Indian Women-Owned
<input type="checkbox"/> (W)	<input type="checkbox"/> (U)	Eskimo/Aleut Owned
<input type="checkbox"/> (X)	<input type="checkbox"/> (V)	Eskimo/Aleut Women-Owned

YOU MUST RETURN THIS FORM WITH YOUR PROPOSAL PACKAGE.
CONTRACT AWARD SHALL NOT BE MADE WITHOUT IT.



COUNTY OF FAIRFAX

**DEPARTMENT OF PURCHASING & SUPPLY MANAGEMENT
SMALL AND MINORITY BUSINESS ENTERPRISE PROGRAM (SMBEP)
12000 Government Center Parkway, Suite 427
Fairfax, Virginia 22035-0013
Fax: 703-324-3228**

SUBCONTRACTOR (S) NOTIFICATION FORM

Contract Number/Title: _____

Prime Contractors Name: _____

Prime Contractor's Classification Code: _____ (from SBE Schedule)

In accordance with the Subcontracting paragraph of the Special Provisions for the above-cited contract, you are required to provide the County with names, addresses, anticipated dollar amount and small/minority classification (use code numbers from previous page) of each first-tier subcontractor. Please complete this form and return it to this office with your bid package. The purpose of determining a subcontractor's small/minority classification, the criteria for both is stated below:

Please check here if you are not using a subcontractor: _____

<i>SUBCONTRACTOR(S) NAME</i>	<i>STREET ADDRESS</i>	<i>CITY</i>	<i>STATE</i>	<i>ZIP CODE</i>	<i>ANTICIPATED DOLLAR AMOUNT</i>	<i>SMALL/MINORITY CLASSIFICATION</i>

YOU MUST RETURN THIS FORM WITH YOUR PROPOSAL PACKAGE. CONTRACT AWARD SHALL NOT BE MADE WITHOUT IT.

**Fairfax County
Proposal Signature Cover Letter**

Proposal of: _____

MISCELLANEOUS REQUIREMENTS

Discount for payment within twenty (3) days? _____%

Amount of additional discount if requirement for a performance
Bond is waived. _____%

Offeror's maximum increase in price/year (effective upon
renewal only). (See Section 3.7) _____%

Offeror's Point of Contact:

Name: _____

Phone: _____

If workforce does not exceed twenty (20) full-time employees, COMPLETE ONLY "VENDOR
DECLARATION OF ELIGIBILITY FOR EXEMPTION BASED ON WORKFORCE OF 20 OR
FEWER EMPLOYEES" found attached to the bid document.

Return form with your proposal. Yes____ No____

Have you submitted a complete proposal? **(10 copies)** Yes____ No____

(Duplicate as Necessary)

APPENDIX C

Table of Conformance

Table of Conformance

(MD) Mandatory Requirement

(NM) Requirement Not Met

(P) Requirement to be Programmed

(EX) Requirement Exceeded

(M) Requirement Met

(Remarks) Remarks to show how exceeded

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
2.0	Instructions to Bidders	8	3					
2.1	Late Proposals – Specifies non-acceptance of late bids	9	3					
2.2	Point of Contact - Fairfax County Point of Contact	9	3					
2.3	Submission of Bids - Specifies when and where bids are to be submitted	9	3					
2.4	Requests for Clarification - procedures to seek clarification of items	10	3					
2.6	Contract Milestones - Schedule of critical dates	10	3					
2.7	General Requirements - Mandatory requirements	11	3					
2.7.1	Proposal for Interim Solutions - Will not accept interim solutions	11	3					
2.7.2	Customer Base and References - status of company and its	11	3					
2.7.3	Annual Report or Financial Statement - Submission of	11	3					
2.7.4	Trade Secret - discussion of trade secrets	12	3					
2.8	Evaluation Criteria – Basis of Award	13						
2.8.1	Basis for Contract Award – may be in whole or part	13						
2.8.2	Selection Criteria - General description of criteria for	14	3					
2.8.3	Business Section Proposal Instructions – General	16	3					

RFP Section	Requirement Description	Proposal Page No	MD	M	NM	P	EX	Remarks
3.0	Terms and Conditions – All subsections of section 3 covered	17						
3.1	Bidder's Conference – Purpose of Bidder's Conference	17						
3.2	Revisions - County procedures for addendum	17						
3.3	Errors and Omissions – Procedures for Errors or Omissions	17	3					
3.4	Contract Period – Period of Contract when awarded	17	3					
3.5	Contract Extensions – Overview of extension options	18	3					
3.6	Pricing and Costs – How bidders respond to pricing and costs	18	3					
3.7	Price Changes – Procedures to be followed for price increases	19	3					
3.8	Additional Models, Upgrades and Features – Procedures for Bidders to list above equipment	19						
3.9	Performance Bonding – General information about bonding if required	20						
3.10	Designated Bidder's Point of Contact – Procedures for designating BPOC	20	3					
3.11	Security – County's security requirements	20	3					
3.12	Technical Assistance – Bidder's requirements for technical assistance	20	3					
3.13	Resolution of Questions and Issues – How to proceed to resolve questions and issues	20	3					
3.14	Subcontracting – Policies on bidder subcontracting	20						

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
4.0	Software Licenses - All subsections of section 4 covered	21	3					
4.1	Software Elements – bidder requirements for software	21	3					
4.2	Future Software Upgrades/Delivery – Bidder requirements	21	3					
4.3	Non-titled Perpetual Software Licenses – County's right to software licenses	21	3					
4.4	Software Upgrade license and documentation – Software licenses and County's needs	21	3					
4.5	Title (Software) – bidder to specifically state that County acquires title to software license	22						
5.0	Existing Campus Environment and Network Infrastructure	22						
5.1	Background – County's current network environment	22						
5.1.1	FCG and FCPS Connectivity – Current and I-Net requirements	22	3					
5.2	Technology Goals/Objectives – Introduction and goals and objectives of Fairfax County network upgrade	23	3					
5.3	County's Current Infrastructure – County's System	23						
5.4	Network Overview – FCG and FCPS	23						
5.5	Existing Closets and Wiring Plant – Current closet & cabling plant	24						
5.6	Existing Network Segmentation – The County's shared segment	24						
5.7.1	Existing Capabilities – Voice and Data	24						
5.7.2	Existing Capabilities – Audio and Video	25						

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
6.0	Technical Requirements - All subsections of section 6	27						
6.1	Technical Requirements – General Overview	27						
6.2	The New I-Net Architecture Objectives – Project Overview	27	3					
6.3	Design Objectives – Overview and Compatibility with existing	27	3					
6.3.1	Concept and Exploration Phase – Lists Analysis Requirements	28	3					
6.3.2	Pre-Design Phase – Lists pre-design criteria	28	3					
6.3.3	Engineering and Development Phase – Overview of Solution Development	28	3					
6.4	Implementation Objectives – Covers Fully functioning I-Net and Seamless Transition	28	3					
6.4.1	Pre-Implementation Phase – Lists coordination and scheduling requirements for	29	3					
6.4.2	Implementation Phase – Guidelines to confirm with site contacts to transition to I-Net	29	3					
6.5	Institutional Network Infrastructure Requirements – Overview of protocols and	29	3					
6.5.1	Design Deliverables – Schematic, 50% and 100% design requirements	31	3					
6.5.2	Implementation Deliverables – Covers cutover, training, documentation, acceptance	31	3					
6.6	Solution Compatibility – The I-Net must be compatible with existing County infrastructure	32	3					
6.7	Overall Network Architecture – Must support ATM, Gigabit Ethernet, existing switching and routing environment	32	3					

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
6.8	Hardware Equipment and Requirements	32						
6.8.1	Standard Equipment – Covers hardware and software standardization	32	3					
6.8.2	Reliability and Availability – Outlines reliability requirements	33	3					
6.8.3	Virtual Lan Capability – Overview of VLAN Capability	33	3					
6.8.4	VLAN Membership – Overview of VLAN support	33	3					
6.8.5	Shared Media Hub/Switch – Intelligent Integration Capability	33	3					
6.8.6	Switching to the Desktop – Per-Port switching to all desktops	34	3					
6.8.7	Auto-Partitioning for Erring Ports – Must be supported	34	3					
6.8.8	Backbone Switch Port Speeds – Port speed/technology overview	34	3					
6.8.9	Redundant Power Supply – Overview of requirements	34	3					
6.8.10	Hot-Swappable Cards – Overview of requirements	34	3					
6.8.11	Instrumentation of the Network – Overview of management and analysis tool requirements	34	3					
6.8.12	High Bandwidth Support – Overview of requirements	35	3					
6.8.13	Network Latency – Overview of requirements	35	3					
6.8.14	Network Performance – Packets Per Second Overview	35						
6.8.15	Bus Architecture Bandwidth – Overview of requirements	35						

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
6.9	County's Network Service-Level Requirements - All subsections of section 6.9 covered	35						
6.9.1	Service Call Response Time – Diagnosis to start with initial telephone call	35	3					
6.9.2	Service Coverage – 24/7 Capability	35	3					
6.9.3	Proactive Network Monitoring – Support required	35	3					
6.9.4	Total Quality Management – Overview of requirements	36	3					
6.10	Network Test Lab (Optional) - All subsections of section 6.10 covered	36						
6.10.1	General Requirement – Separate Pricing	36						
6.10.2	Purpose – Requirements to support testing, training and off-line problem resolution	36						
6.10.3	Component Pricing – Cost breakdown requirements	36	3					
6.11	Hardware/Equipment Configuration - All subsections of section 6.11 covered	36						
6.11.1	Equipment Schedule and Cost – Overview of requirements	36	3					
6.11.2	Spare Parts – Component and quantity requirements	36	3					
6.11.3	Used Equipment Credit – Trade-in credit overview	36	3					
6.11.4	The County's Staffing Requirements – Manpower and other resource overview	37	3					

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
6.12	Operating System Software – Overview of requirements	37						
6.12.1	Access Authentication – General requirements	37	3					
6.12.2	Ease of Use – Management task interface overview	37	3					
6.12.3	Year 2000 (Y2K) Compliance – Mandatory support for Y2K compliance	37	3					
6.13	Network Management – Overview of in-band and out-of-band management	37	3					
6.13.1	Integrated Management Platform – Overview of	39	3					
6.13.2	Network Management Tools – Component Requirements	39	3					
6.13.3	Network Management Platform – Overview of requirements	39	3					
6.13.4	Network Management Database – Oracle database requirements	39	3					
6.13.5	Management of Logical Elements – Physical and logical requirements	39	3					
6.13.6	Central Management Console – Support requirements	39	3					
6.13.7	Remote Operation – Support requirements	39	3					
6.13.8	Task Automation – Discovery, mapping and notification support requirements	39	3					
6.13.9	Scalable Platform – Increased systems and segment support overview	39	3					

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
6.14	Management Station Backup/Recovery - All subsections of section 6.14 covered	40						
6.14.1	Backup Capability - Overview	40	3					
6.14.2	Backup and Recovery Procedures – Support	40	3					
6.14.3	System Reload Capability – Support requirements	40	3					
6.14.4	Automated Backup – Support requirements	40	3					
6.15	Network Migration Requirements - All subsections of section 6.15 covered	40						
6.15.1	Transparent Migration – Support requirements	40	3					
6.15.2	Implementation Plan – Sound, reliable support requirements	40	3					
6.15.3	Performance Metrics – Support requirements	40	3					
7.0	Personal/Consultive Services Requirements - All subsections of section 7.0 covered	41	3					
7.1	General Requirements – All subsections of section 7.1 covered	41	3					
7.1.1	County – I-Net Team support requirements	41						
7.1.2	Contractor – Contractor responsibilities	41	3					
7.2	Resolution of Questions and Issues – Outline of procedure	43	3					
7.3	Escalation Procedures – Contractor escalation support requirements	43	3					
7.4	Quality Reviews – Contractor quality review and reporting requirements	43	3					

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
8.0	Deliveries, Installation, Testing, Payment and General Information - All subsections of section 8.0 covered	43						
8.1	Price Bid Content – Overall requirements	43	3					
8.2	Equipment Delivery – Overall procedures	43	3					
8.3	Preliminary Inspection – Notification of damage procedure	44	3					
8.4	Design/Manufacture – New hardware and software requirements	44	3					
8.5	Shipment Rejection – County's rejection capability requirements	44						
8.6	Component or Item Rejection - – County's rejection capability requirements	44						
8.7	Price Quotes – County to purchase equipment directly from vendor	44	3					
9.0	Testing and Acceptance - All subsections of section 9.0 covered	44						
9.1	Certification and Testing – Five levels of requirements	44	3					
9.2	Certification – Overview of requirements	44	3					
10.0	Warranties/Support and Maintenance – All subsections of section 10.0 covered	45						
10.1	Equipment Support - All subsections of section 10.1 covered	45						
10.1.1	Support Warranty – 1 yr. requirements	45	3					
10.1.2	Overall Equipment Support – Specific requirements	45	3					

RFP Section	Requirement Description	Proposal Page No.	MD	M	NM	P	EX	Remarks
11.0	Warranty/Maintenance Service - All subsections of section 11.0 covered	46						
11.1	Warranty Period – Hardware and software requirements	46	3					
11.2	Maintenance Options – Overview of requirements	46	3					
12.0	The County's Responsibilities – County's Obligations	48						
12.1	Access to the County's Facilities – County will provide access	48						
12.2	Backup and Recovery Procedures – County will provide backup procedures	48						
12.3	Front-line Problem Resolution – Procedures for resolution	48	3					
13.0	Training and Enhancements – All subsections of section 13.0 covered	48						
13.1	Training – Training requirements	48						
13.1.1	Training Plan Details – Describe training plans	48	3					
13.1.2	Standard Training – List of training with equipment	49	3					
13.1.3	Cost of Supplemental Training – Additional costs for training	49	3					
13.1.4	Off-site Training – Specify location	49	3					
13.1.5	Hands-on Training – Provision of material and other	49	3					
13.1.6	Staff Training – Training for County personnel	49	3					
13.1.7	Future Enhancements – Provision of anticipated enhancements	49	3					

APPENDIX D

Services and Support

APPENDIX D

SERVICE AND SUPPORT

General Support Capabilities

Pre-Installation Services Provided:

Please indicate your response with an 'X' in the appropriate box.

PRE-INSTALLATION SERVICES	Yes	No	Futur	3 rd Party
Network Design				
Network Performance Auditing				
Internet Gateway and Fire-walling audit and design				
Staging and Integration				

Installation Services Provided:

Please indicate your response with an 'X' in the appropriate box.

INSTALLATION SERVICES	Ye	No	Futur	3 rd Party
Delivery of equipment to the site location				
Assistance with physical positioning				
Assistance with connection of equipment				
Assistance with power connections				
Assistance with telephone company connections (if needed)				
Assistance with installation on date set by client, when distributor or 3rd party is responsible for installation				
Assistance with contractor responsible for damages				
Assistance with contractor responsible for failed inspections				
Provide reports at completion of major design phases for client approval				
Conduct frequent project status meetings with client in attendance				
Provide trainers who will be onsite to help station users on cut-over day and three (3) days thereafter				
On-site recovery assistance				
Single point of contact Account manager				

Installation Essay Questions

What are the standard milestones, timeframes, and/or procedures for the installation of the system or network? Include the description of the standard milestone checklist and estimated time for completion.

Describe how a missed goal date for a milestone for system implementation is handled:

When a milestone is attained, how is it measured in terms of satisfactory completion for the client?

Telephone Support Available Vendor/Distributor/3rd Party

Indicate with an 'X' which of the following support capabilities are available:

(Can be multiple providers)

	VENDOR				DISTRIBUTOR				3 rd PARTY			
	24hr 7day	24hr 5day	12hr 5day	8hr 5day	24hr 7day	24hr 5day	12hr 5day	8hr 5day	24hr 7day	24hr 5day	12hr 5day	8hr 5day
On-site support												
Dispatched support												
800 (toll-free) hotline: Level-1 support												
800 (toll-free) hotline: Level-2 support												
24 hour hotline: Level-1 support												
24 hour hotline: Level-2 support												
Video conferencing												
Remote diagnostics												

Guaranteed Response Times

	PROBLEM TYPE		GUARANTEED RESPONSE TIME (in hours)
1.	Problems requiring vendor to return call		
2.	Problems requiring on-site assistance		
3.	Major outages -		
4.	Minor outages -		

Service and Support – Essay Questions

How does your Service & Support organization define 'major' and 'minor' outages?

Describe how a client would be 'compensated' if they were to experience non-compliant service response times?

Does your Service and Support organization operate as a separate business (separate P&L)?

What percentage of overall corporate revenues is derived from the Service & Support organization?

Describe service escalation procedures including flowchart/organization chart if possible:

What basic level of support is standard (i.e. no additional cost)? What does it include?

Service and Support – Essay Questions (CONTINUED)

What level of support is available for additional cost? What does it include?

Please give the cost (or costs) for this (these) additional level(s) of support as a percentage of the equipment's list price:

What size maintenance contract (in terms of \$) must a client have in order to be considered a 'premium' or elevated status service and support client?

Does your organization offer an on-site 'resident engineer' program to your clients? (i.e. a vendor service professional is on-site at client location on a full time basis - 5 days x 8 hours per week)?

If yes to the above question, what is the average cost for this program?

Does the manufacturer offer an extended warranty?

What are the details and costs of extended warranty options?

What secondary (i.e. refurbished) market sources exist for service and/or replacement of components?

Service and Support – Essay Questions (CONTINUED)

Does your organization sponsor a user's group(s) for this product family? If so, detail the number of different groups, their size, number of times per year such groups meet, and any other appropriate information.

Website/webpage URL for Users Group(s): _____

Does your organization offer an outsourcing program for the full time monitoring of client's networks?

If yes to the above question, how many networks is your company currently monitoring as part of this program?

On-line Service and Support available

Website/web page URL for Vendor Service and Support: _____

Describe the functionality and capability clients have from your organization Service and Support website/web page:

Please indicate your response with an 'X' in the appropriate box.

ON LINE SERVICE & SUPPORT FEATURES		YES	NO	FUTURE (NEXT 6 MONTHS)
Manuals on line				
Technical Tips on line				
Release notes on line				
Can download software and firmware patches				
Query database for commonly asked technical questions				
Submit technical questions and receive responses				
Query database for troubleshooting tips				
Trace/Log decoding tool				
Open a case with technical support center				
Query the case with the technical support center				
Update the case with additional information				

Submit Return Material Authorizations (RMAs)			
Check on status of RMAs and/or service order			
Automatic notification of potential bugs in clients network sent via email			

Maintenance

Warranty Support Capabilities – Essay Questions

Describe what alliances/agreements your organization with Distributors/System Integrators to fulfill **Warranty** support of the product/system (during and post-implementation):

Please list the details of the above. If you need more room, please add to the table.

Name of Distributor or System Integrator for support	Locations served including international	Describe role played in system support	Year agreement established	Year of expiration

Warranty Support and Upgrades:

Please indicate your response with an 'X' in the appropriate box.

Warranty Support Items	Yes	No	Futur	3 rd Party
Do you provide performance-monitoring audits?				
Do you provide remote software change capabilities?				
Do you keep up-to-date records on all aspects of the system on-site, including programming details and service performance history?				
Do you include (at no extra charge) preventative maintenance?				
Do you provide (free of charge) a post-cut-over Network traffic study?				
Do you provide (free of charge) a post-cut-over Network modification study?				
Do you provide system enhancements and documentation upgrades?				
Do you provide source code utility for upgrades?				
Do you provide a schedule of updates/upgrades?				

Warranty Support and Upgrades – Essay Questions

What is the frequency of upgrades and/or updates?

How does the user obtain upgrades?

Describe any special programs user can subscribe to, to make these upgrades available.

How are new features and software upgrades brought on-line in a Network system that is fully operational?

System Repair Procedures

Provide the step-by-step procedures involved in correcting errors found in the software reported to the vendor by clients.

Describe procedures for system repairs in the event of a catastrophe (e.g. fire natural disaster, accident, etc.).

Detail any special programs for this type of catastrophe problem.

Quality Assurance Essay Questions

Does your organizations' System Installation Group utilize an independent 3rd party organization to perform QC/QA reviews or audits? If so, please identify.

Describe how the Quality Control/Quality Assurance organization within the organization receives and acts upon feedback from clients:

Does your organization have a lab(s) to replicate (in a managed environment) any potential problems that might occur in client accounts? Describe here. Include location of lab(s) and how far back in the product/system family the lab(s) currently can replicate problems.

Is the product /system family ISO certified?

Which ISO certifications?

When were ISO certification(s) first given?

Are there any other Quality Certifications the product/system family has achieved or obtained? Please detail.

How is quality measured in the Manufacturing organization?

How is quality measured in the Service and Support organization?

Describe how the Service and Support organization monitor and maintain quality?

How are Field Engineering personnel trained and certified?

Is Statistical Quality Control (SQC) used in the manufacturing process? Please describe.

How many certified (ASQC or similar) Quality Control engineers are in the company?

How many certified (ASQC or similar) Quality Control engineers are in the Service and Support organization?

Service and Support Installations by Industry

To better understand the breadth of experience the manufacturer and its distributors/dealers have with various industry segments, we request a breakdown of installed systems in the last **fiscal year** by industry vertical. If not exactly known, please indicate a 'best guess'. We expect not every manufacturer to be present in every vertical market. This is a breakdown of sales and installations **worldwide**.

Please indicate your response with the appropriate percentage in the appropriate box. Blank answers will be assumed to be zero (0).

Industry/Vertical	% of Installed Projects Worldwide	% of Total Sales Revenues Worldwide
Aerospace		
Banking and Finance		
Consumer Products		
Educational Institutions		
Government outside the US (e.g. France)		
Government -US Federal		
Government -US State and/or Local		
Health Care		
Hospitality/Resort/Hotel		
Insurance		
Media		
Manufacturing		
Real Estate/Property Services		
Retail/Wholesale		
Services		
Telecommunications		
Transportation		
Utilities		

Professional Services

Pre-sales services provided:

Please indicate your response with an 'X' in the appropriate box.

PRE-SALES SERVICES	Yes	No	Futur	3rd Party
Do you provide pre-sale audit and analysis of Prospect's facilities?				
Do you provide analysis of application requirements?				
Do you provide management or user sessions and demonstrations?				
Do you provide solution proposals?				
Do you provide site visits for prospects to see live system capabilities?				
Do you provide feasibility assessments?				
Do you provide Network strategy assessment and advice?				
Do you provide technical installation advice?				
Do you provide detailed specification recommendations for inside & outside plant and cable?				
Do you provide details of network interface requirements?				
Do you provide network design recommendations?				
Do you determine the design for system-wide features and establish system parameters?				
Do you provide pilot/prototype systems?				

Project Management Essay Questions

Does your Professional Service / Project Management organization operate as a separate business? (Separate P & L)?

Does your Professional Service / Project Management organization assist the client in developing management processes for the implementation and support of the system or network?

Does your Professional Service / Project Management organization provide a dedicated person or team to manage the system implementation?

Project Management Essay Questions (CONTINUED)

What are the associated costs for assisting the client in developing management processes for the implementation and support of the system or network?

Describe how the client is provided assistance in dealing with the party responsible for the installation of Network connections.

Describe what your organization believes to be a reasonable period of time for acceptance testing.

If a problem occurs during this acceptance period, describe how the acceptance test period is modified.

Describe the alliances and agreements your organization has with Distributors or System Integrators to fulfill installation and implementation support for the product/system family.

Please list the details of the above. If you need more room, please add to the table.

Name of Distributor or System Integrator for installation & implementation	Locations served including international	Describe role played in system installation and implementation	Year agreement established	Year of expiration

Client Training Capabilities and Provider

For the areas listed below, indicate whether your organization provides this type of training.

Please indicate your response with an 'X' in the appropriate box. Combinations of Vendor, Distributor and 3rd party are allowed if appropriate.

TYPE OF TRAINING OR SERVICE	VENDOR	DISTRIBUTOR	3 RD PARTY
On-site standard training			
On Site Customized Training			
Off Site Training			
DIT Training			
Course materials on CD-ROM			
Printed course materials for every end-user			
Computerized Training			
Training Videos			
Interactive training embedded in the system (Please detail separately)			

Technical Training Capabilities and Provider

In the areas below, indicate whether your organization provides the following training.

Please indicate your response with an 'X' in the appropriate box.

Type Of Technical Training Or Services	Yes	No	Futur	3rd Party
Administrative Staff Training				
Programmer Training for Software Changes				
Programmer Training for Operation of Features				
Programmer Training includes Relevant Manuals free of charge				
Technician Training for Equipment Operation				
Technician Training for Installation				
Technician Training for Programming				
Technician Training for Trouble Shooting				
Technician Training for Administrative Functions				
Do your organization provide technical tools?				

Technical Training – Essay Questions

Does your organization provide training facilities for “Train the Trainers”? Please describe.

Does your organization provide an in-house training program for end-users? Please give details such as length of courses, intended audience, time of day course is available, number of students per class, etc.

Does your organization have a certification program for the client's telecommunications staff to administer, fine tune, support and conduct system expansion (i.e. 'network expert') family?

What is the process to become certified (i.e. written test, lab test, different levels of certifications)

What are the requirements to maintain this certification(s)?

Does your organization have an in-house certification program for 3rd party product hardware and software compatibility?

Provide a detailed description of the standard training schedule offered to clients.

APPENDIX E

Corporate Viability

Corporate Viability

The following information will be used to assess the relative long-term stability of each vendor. We realize that some data may be deemed proprietary and sensitive. As a result, data will be stated in a relative form (e.g. below, at, above industry average) via the Analytic Hierarchy Process and will not appear in its raw form.

In order to assist our analyst team during validation of this information, we would be grateful if you would include copies of the financial statements contained within your last four quarterly reports and the last annual report (Forms 10Q and 10K respectively in the United States) with this survey.

Financial and Statistical Information

How many years has the company been in existence? _____

Please indicate the date on which your financial year ends each year: _____

Please state the currency in which you report: _____

What is the name of your firm's external auditors? _____

	1999	1998	1997	1996
Staff Turnover Information				
% Turnover Rate of All Staff				
% Turnover Rate of Sales Representatives				
% Turnover Rate of Internal Developers				

At this time are the principals of your organization guaranteeing bank debt? _____

Have your accounts been restated in the last three (3) years? If so, under what circumstances: _____

Please describe your organization's revenue recognition model (*for example*, 40% initially, 60% upon handover)? _____

Discuss the sources of leadership within your management team: _____

What are your three principal core competencies and strengths relative to your competitors? _____

In what areas are your R&D and S&M focused? _____

Do you believe your firm responds to market opportunities ahead of the market, in line with the market, or behind the market?

Do you believe that your organization is renowned for the quality of its corporate culture? If so, why? _

Product Market

What percentage of the firm’s revenue is provided by the sale of Metropolitan Area Networks and related technology? _____

If MAN's are not the firm's main line of business, then specify the vendor's industry focus:

Detail any innovations or technologies for which your firm is responsible in the MAN market space: ____

Are there plans to switch the main line of business to or away from the MAN industry? If so, provide details about when this will take place and how it is expected to affect the fiscal situation of the firm.

Are there plans to add any additional lines of business? If so, provide details about what effect this is expected to have on the MAN business, what effect it will have on the overall financial stability, and when this change is expected to take place.

Indicate the technologies you are certified in: _____

Indicate what percentage of your firms sales are derived from each of the following market segments:

_____ % **Service Providers**

_____ % **Enterprises**

Alliances and Partnerships

Please list your current alliances and partnerships in the area of product development: _____

Please list your current alliances and partnerships which supplement your product range : _____

Please list your current distribution alliances and partnerships: _____

Please list the systems integration, implementation and service support firms with which you currently have alliances or partnerships:

Corporate Vision

Please answer the following questions about your organization's view of the industry's future and it's plans to maintain or enhance its position in the market. Your answers should be provided as an attachment at the end of the survey response, using this specific format to answer all questions as completely as possible. This section should allow organization executive management the opportunity to expound on the focus and strengths of the organization going forward over the next 1-3 years.

Strengths and Improvement Areas

Please summarize the information provided in this Vision Section by identifying the three (3) prominent strengths of the organization's products, organization, or procedure as well as three (3) areas the organization intends to develop further or improve upon in the next 1-3 years:

'High level' Vision- Company core competencies:

1. _____

2. _____

3. _____

'High level' Vision– Company intends to develop or improve upon in the next 1-3 years:

1. _____

2. _____

3. _____

Functionality Vision

Please detail how the product(s) will be enhanced and improved.

1. What have been the product milestones or enhancements for the organization in the past 6(six) months/1(one) year?

2. What major functionality enhancements are planned for the next year?

3. What are the 2(two) most frequently requested features that your organization clients have been asking for, but the organization is unable/not planning to include in the next year?

4. Is the organization a leader in terms of product functionality? If so, why?

5. In what ways can users network with other users to voice concerns about product direction (i.e. user groups, forums, etc.).

Technology Vision

Please detail organization plans to improve and expand the technology of its products.

1. How would your organization define the company's market?

2. Is the company's technology impacting the market or vice versa?

3. What innovative technological changes will the company be making to its product line within 1-3 years?

4. Will these changes in technology require changes on the user side?

5. Will the company incorporate such changes required on the user side into a migration plan?

6. What are three (3) dominant technology trends in this market, and how does the company envision incorporating these trends into products?

Please detail your company plans to improve and expand the technology of its products.

1. Has the company been presented with any industry or business awards for innovative systems, business processes or inventions in the past 3 years? Provide details (name of award, given for what purpose, etc.)

2. How will the company continue to achieve these awards?

3. Does the company see itself as a technological leader in Enterprise Data Communications technology?

4. What makes the company a leader in this area of technology?

Service and Support Vision

Please detail the company's plans for improve client service and support offerings, with a specific focus on each of the areas listed below:

1. What technologies does your organization use to run the support organization (i.e. any internally or externally developed software or help desk tools)?

2. What new technologies will be implemented over the next year?

3. What training does the company provide to service and support people initially and on an on-going basis?

4. Will this be changing in the next year?

5. Does the company have a separate professional services (consulting) group?

6. If distributors provide professional services, are there any programs in place to maintain quality control of these groups?

Viability Vision

Please detail the company's strategy over the next 1-3 years for sustained financial viability and growth with a specific focus on each of these areas listed below:

1. Manufacturing: Economies of scale, Outsourcing, Consolidation, etc.

2. Supplier relationships: Single versus Multiple Sourcing, Consolidation, Supply Chain Management, Use of the Internet to track suppliers, etc.

3. Investment Areas: Research & Development, Sales & Marketing, Operations, etc.

4. What percentage of R&D budget is dedicated solely to Enterprise Data Communications systems?

5. Will this percentage change over the next year?

APPENDIX F

Pricing Forms

**Fairfax County
Pricing Form**

Proposal of: _____

Contract Number: _____

By signing this Proposal, the Offeror understands and agrees to the attached Terms, Conditions and Specifications, including Paragraph 2.4.8 of the Standard Terms and Conditions entitled "STATEMENT OF NON-COLLUSION".

STATE YOUR FIRM'S FULL LEGAL NAME:

(This information is for preparation of contract forms if award is made to your firm.)

SIGNATURE: _____

NAME: _____
(Please type name of contact person for contracts.)

INCORPORATED IN THE STATE OF: _____

Payment should be made to:

NAME: _____
(If different from above)

ADDRESS: _____

CITY, STATE, ZIP: _____

FEDERAL IDENTIFICATION
OR SOCIAL SECURITY NO: _____
(Necessary before payment can be made.)

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

MISCELLANEOUS REQUIREMENTS

Discount for payment within twenty (3) days? _____%

Amount of additional discount if requirement for a performance
Bond is waived. _____%

Offeror's maximum increase in price/year (effective upon
renewal only). (See Section 3.7) _____%

Offeror's Point of Contact:

Name: _____ Phone: _____

If workforce does not exceed twenty (20) full-time employees, COMPLETE ONLY "VENDOR
DECLARATION OF ELIGIBILITY FOR EXEMPTION BASED ON WORKFORCE OF 20 OR FEWER
EMPLOYEES" found attached to the bid document.

Return form with your proposal. Yes____ No____

Have you submitted a complete proposal? **(10 copies)** Yes____ No____

Duplicate as Necessary)

**Fairfax County
Pricing Form**

Proposal of: _____ **Contract Number:** _____

Address: _____

City, State, Zip: _____

Contact Person: _____

Phone Number: _____

Fax Number: _____

This proposal is for the furnishing and delivery of networking equipment for Fairfax County, in accordance with the attached specifications which were submitted with this Proposal and upon which this Proposal is made.

NETWORK ARCHITECTURE PRICING

A. EQUIPMENT

Provide the following specifications and cost information for the equipment you propose for the County in the attached spreadsheets. Base your specifications on a fault-tolerant network infrastructure capable of handling current volume of network traffic plus a projected volume increase of 25 percent.

Complete this information for each type of network device that you propose for the County (i.e., hubs, servers, switches, routers, etc.).

(Duplicate as Necessary)

Fairfax County
Pricing Form

1. Operational Network
Equipment

Device Type	Manufacturer	Model	MTBF	Cost per Unit						Warrantee Period	Annual Maint.	Remarks
				1-4	% Dis..	4- 10	% Dis..	>10	% Dis..			

Fairfax County
Pricing Form

1. Test Lab Equipment
(Optional)

Device Type	Manufacturer	Model	MTBF	Cost per Unit						Warrantee Period	Annual Maint	Remarks
				1-4	% Dis..	4-10	% Dis..	>10	% Dis..			

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

Design Costs

In accordance with Section 6 of the base RFP, Technical Requirements, please provide the costs for the design phases. It is essential that the vendor selected be able to provide appropriate level of personnel, both in quantity and quality, to meet the County's network needs in a timely manner. It is the expectation that the selected personnel will be available and on site within 10 calendar days from the date of the signed Statement of Work detailing the phases to be completed.

Concept and Exploration Phase

Personnel Title	Personnel Level	Hourly Cost
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

Pre-Design Phase

Personnel Title	Personnel Level	Hourly Cost
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

(Duplicate as Necessary)

Engineering and Development Phase

Personnel Title	Personnel Level	Hourly Cost
		\$
		\$
		\$
		\$
		\$
		\$
		\$

Pre-Implementation Phase

Personnel Title	Personnel Level	Hourly Cost
		\$
		\$
		\$
		\$
		\$
		\$
		\$

Implementation Phase

Personnel Title	Personnel Level	Hourly Cost
		\$
		\$
		\$
		\$
		\$
		\$
		\$

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

Installation Costs

It is essential that the vendor selected be able to install the network equipment in a timely manner, as the network infrastructure is vital to, and a prerequisite for, several other system implementations currently in progress at the County. It is the expectation that the delivered equipment shall be installed in accordance with the vendor supplied, and County approved, schedule.

Installation Services to Install Production Network

Personnel Title	Personnel Level	Hourly Cost
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

Installation Services to Install Test Lab Network

Personnel Title	Personnel Level	Hourly Cost
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

Personnel Costs

In accordance with Section 7 of the base RFP, Personal/Consultative Service Requirements, please provide the costs for the positions indicated below. It is essential that the vendor selected be able to provide appropriate level of personnel, both in quantity and quality, to meet the County's network needs in a timely manner. It is the expectation that the selected personnel will be available and on site within 10 calendar days from the date of the signed Statement of Work detailing the tasks to be completed.

	Hourly Cost	% Discount from List
a. Program Manager:	_____	_____
b. Project Manager:	_____	_____
c. Senior Network Analyst (CCIE):	_____	_____
d. Senior Network Technician (CNE)	_____	_____
e. Network Technician (CNA)	_____	_____
f. Network Technician (Junior Level)	_____	_____
g.	_____	_____
h.	_____	_____
i.	_____	_____
j.	_____	_____
k.	_____	_____
l.	_____	_____
m.	_____	_____

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

TRAINING

In accordance with Section 10 of the basic RFP, Training and Enhancements, please Itemize training costs not included in the basic cost of the equipment purchased. This training is defined as that required to understand and properly install and maintain the equipment procured. As such, it is reasonable to expect that training may differ based on which type or models of equipment are purchased. Therefore, these training classes should be generically listed for the family of equipment as opposed to each piece of equipment. r These costs should include, but are in no manner limited to, vendor's costs for the instructor, training materials and equipment. (Reference Section 10).

Specify Classes Offered:	Quantity (Hours of Instruction)	Unit Price
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

SUPPORT AND MAINTENANCE

As per Section 9 of the basic RFP, please list the annual maintenance cost beginning 12 months after project certification, as well as any additional costs for emergency service requests. It is envisioned that each type/model of equipment listed may have separate costing. Therefore please include a full list of all the equipment which is proposed under this proposal. Grouping of like items at the same maintenance cost is permitted.

1. Production

Annual support and maintenance of equipment \$ _____
Hourly rate for emergency service requests \$ _____/hr.

2. Test Lab (Optional)

Annual support and maintenance of equipment \$ _____
Hourly rate for emergency service requests \$ _____/hr.

(Duplicate as Necessary)

Fairfax County
Pricing Form

Proposal of: _____ Contract Number: _____

MISCELLANEOUS

List costs for communications lines, miscellaneous equipment, and any supplies needed for installation, warrantee or maintenance support.

Specify the Item:	Quantity	Unit Price	Extended Total
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____

(Duplicate as Necessary)

APPENDIX G

Hub and Site List

Site Name	City
911 Center - Police EOC	Annandale
911 Center - Police EOC	Annandale
A. Scott Crossfield Elementary	Herndon
ADS Fairfax Outpatient	Fairfax
Adult Detention Center	Fairfax
Animal Control	Fairfax
Annandale High	Annandale
Annandale Senior Center	Annandale
Annandale Terrace Elementary	Annandale
Anthony Lane Elementary	Alexandria
Area 1 Maintenance Shop (Olney Park)	Falls Church
Area 3 - Transportation - Dunn Loring Center	Dunn Loring
Area 4 Maintenance Shop	Fairfax Station
Bailey Crossroads Shelter	Baileys Crossroads
Bailey's Elementary School for the Arts & Sciences	Falls Church
Bailey's Senior Center	Falls Church
Beacon Hill Group Home	Alexandria
Beech Tree Elementary	Falls Church
Belle View Elementary	Alexandria
Belle Willard Administration Center	Fairfax
Belvedere Elementary	Falls Church
Blair Building/ Storm Water Maint.	Fairfax
Bonnie Brae Elementary	Fairfax
BOS - Division II - Mason District Station	Annandale
BOS - Lee District - Franconia GC	Alexandria
BOS-Braddock District (Moved)	Annandale
Boys Probation House	Fairfax
Braddock Crossing/SoJorner House	Fairfax
Braddock Elementary	Annandale
Braddock Road Group Home	
Bren Mar Park Elementary	Alexandria
Brookfield Elementary	Chantilly
Bryant Alternative High	Alexandria
Bucknell Elementary	Alexandria
Burke Center	Burke
Burke Center Community Center	Burke
Burke Lake Golf Course	Fairfax Station
Burkholder Center	Fairfax
Bush Hill Elementary	Alexandria
Camelot Elementary	Annandale
Cameron Elementary	Alexandria
Canterbury Woods Elementary	Annandale
Cardinal Forest Elementary	Springfield
Carl Sandburg Middle	Alexandria
Cedar Lane Elementary Center	

Centre Ridge Elementary	Centreville
Centreville Elementary	Centreville
Centreville High	Clifton
Centreville Regional	Centreville
Chantilly High	Chantilly
Chantilly Office - Mental Health Center	Chantilly
Chantilly Regional	Chantilly
Chapel Square Media Center (PEG)	Annandale
Cherry Run Elementary	Burke
Chesterbrook Elementary	McLean
Churchill Road Elementary	McLean
City Square Building	Fairfax
Clark House	Falls Church
Clearview Elementary	Herndon
Clermont Elementary	Alexandria
Clifton Elementary	Clifton
Columbia Elementary	Annandale
Colvin Run Mill Historic Site	Great Falls
Community Center - David R. Pinn Community Center	Fairfax
Community Center - Mott (Braddock)	Fairfax
Community Residence - Group 6 (Pendleton House)	Falls Church
Comprehensive Planning - James Lee Center	Falls Church
Cooper Middle	McLean
Crestwood Elementary	Springfield
Crisis Center/Leland House	
Crossroads	Kingstowne
Crossroads Residential School	Kingstowne
CSB - ADS/Braddock Crossing	Fairfax
CSB - Sunrise Program	
Cub Run Elementary	Centreville
Cunningham Park Elementary	Vienna
Daniels Run Elementary	Fairfax
Day Reporting Center	Alexandria
Deer Park Elementary	Centreville
Devonshire - School	Falls Church
Devonshire - Senior Center	Alexandria
Division of Property & Maintenance	Fairfax
Dolley Madison Community	McLean
DPW Landfill - I-95	Lorton
DPWES I-66 Landfill	Fairfax
Dranesville Elementary	Herndon
Dranesville Hub (STC)	Great Falls
DVS, Alban Facility	Springfield
DVS, Jermantown Facility	Fairfax
DVS, Newington Facility	Lorton
DVS, West Ox Facility	Fairfax
Economic Development Authority	Vienna
Edison High	Alexandria

Edsall Park, Office of Personnel Services	Springfield
Eleven Oaks Administrative Offices	Fairfax
Ellanor C. Lawrence/Walney Visitors Center	Chantilly
Energy Management	Fairfax
Facilities Management Division	Fairfax
Fair Lakes Hub (STC)	Fairfax
Fairfax City Regional	Fairfax
Fairfax County Warehouse	Springfield
Fairfax High	Fairfax
Fairfax House	Annandale
Fairfax Mental Health/CSB-ADS	Fairfax
Fairfax Station Hub (STC)	Fairfax Station
Fairfax Villa Elementary	Fairfax
Fairhill Elementary	Fairfax
Fairview Elementary	Fairfax Station
Falls Church High	Falls Church
Falls Church Senior Center	Falls Church
Family Services	Falls Church
Franconia Youth Services	Alexandria
FCPA - Area 3 Maintenance Shop	Alexandria
FCPA - Wakefield Rec Ctr	Annandale
Finance bldg Old Police Annex	Fairfax
Fire & Rescue #01 - McLean	McLean
Fire & Rescue #02 - Vienna	Vienna
Fire & Rescue #04 - Herndon	Herndon
Fire & Rescue #05 - Franconia	Franconia
Fire & Rescue #08 - Annandale	Annandale
Fire & Rescue #09 - Mount Vernon	Alexandria
Fire & Rescue #10 - Bailey's X-Roads	Falls Church
Fire & Rescue #11 - Penn Daw	Alexandria
Fire & Rescue #12 - Great Falls	Great Falls
Fire & Rescue #13 - Dunn Loring	Dunn Loring
Fire & Rescue #14 - Burke	Burke
Fire & Rescue #15 - Chantilly	Chantilly
Fire & Rescue #16 - Clifton	Clifton
Fire & Rescue #17 - Centreville	Centreville
Fire & Rescue #18 - Jefferson	Falls Church
Fire & Rescue #19 - Lorton	Lorton
Fire & Rescue #20 - Gunston	Lorton
Fire & Rescue #21 - Fair Oaks	Fairfax
Fire & Rescue #22 - Springfield	Springfield
Fire & Rescue #23 - Annandale	Fairfax
Fire & Rescue #24 - Woodlawn	Alexandria
Fire & Rescue #26 - Edsal Road	Springfield
Fire & Rescue #27 - BOS W. Springfield	Springfield
Fire & Rescue #28 - 7 Corners	Falls Church
Fire & Rescue #29 - Tysons Corner	McLean
Fire & Rescue #30 - BOS - Providence District	Fairfax

Fire & Rescue #31 & Police- Fox Mill	Reston
Fire & Rescue #32 - Fairview	Fairfax Station
Fire & Rescue #34 - Oakton	Fairfax
Fire & Rescue #35 - Pohick	Springfield
Fire & Rescue #36 - Frying Pan	Herndon
Fire & Rescue #37 - Kingstowne	Alexandria
Fire & Rescue #38 - West Centerville	Centreville
Fire Training Academy	Fairfax
Flatlick Shop	Chantilly
Flint Hill Elementary	Vienna
Floris Elementary	Herndon
Forestdale Elementary	Springfield
Forestville Elementary	Great Falls
Fort Hunt Elementary	Alexandria
Fox Mill Elementary	Herndon
Franconia Elementary	Alexandria
Franconia Group Home	Alexandria
Franklin Middle	Chantilly
Franklin Sherman Elementary	McLean
Freedom Hill Elementary	Vienna
Frost Middle	Fairfax
Frying Pan Park Activity Center/Equestrian Center	Herndon
Garfield Elementary	Springfield
George Mason Regional	Annandale
George Washington Rec Center	Alexandria
Girls Probation House (Inet-1)	Fairfax
Girls Probation House (Inet-2)	Fairfax
Glasgow Middle School	Alexandria
Glen Forest Elementary	Falls Church
Government Center - McLean	McLean
Graham Road Elementary	Falls Church
Great Falls Elementary	Great Falls
Green Acres Elementary	Fairfax City
Green Springs Gardens/Manor House	Alexandria
Greenbriar East Elementary	Fairfax
Greenbriar West Elementary	Fairfax
Greendale Golf Course	Alexandria
Gregory Road Crisis Care Home	Alexandria
Groveton Elementary	Alexandria
Gunston Alternative School	Alexandria
Gunston Corner Hub (STC)	Lorton
Gunston Elementary	Lorton
Hartwood Foundation	
Haycock Elementary	Falls Church
Hayfield Elementary	Alexandria
Hayfield Secondary	Alexandria
Health Department/SPRINGFIELD	Springfield
Health S.County Moved Site 730	

Herndon Elementary	Herndon
Herndon High	Herndon
Herndon Middle	Herndon
Herrity Building	Fairfax
Hidden Pond Nature Center	Springfield
HIDTA - (Recovery House)	Falls Church
Hollin Meadows Elementary	Alexandria
Holmes Middle	Alexandria
Hope Center For Women	Alexandria
Housing & Community Development	Fairfax
HSIT, Baileys Crossroads	Falls Church
HSIT, Gum Springs	Alexandria
HSIT, Lincolnia Ctr	Alexandria
Hunt Valley Elementary	Springfield
Hunter House - Nottoway Park	Vienna
Huntington Community Center	Alexandria
Huntley Meadows Park	Alexandria
Hutchinson Elementary	Herndon
Hybla Valley Elementary	Alexandria
IFC - Minerva Fisher	Vienna
Irving Middle	Springfield
James Lee Center	Falls Church
Jefferson District Golf Course	Falls Church
John Marshall Community	Alexandria
Johnie Fort Support Center	Springfield
Joseph Willard Health Center	Fairfax
Judicial Center/Jennings	Fairfax
Juvenile & Boys Transition Home	Fairfax
Juvenile & Domestic Court	Fairfax
Juvenile Detention Center	Fairfax
Juvenile Detention Center	Fairfax
Kaleidoscope Alternative School	Vienna
Keene Mill Elementary	Springfield
Kelly Square - Dept of Health	Fairfax
Kent Gardens Elementary	McLean
Key Center	Springfield
Key Middle School	Springfield
Kilmer Center/school	Vienna
Kilmer Middle	Vienna
Kings Glen Elementary	Springfield
Kings Park Community Library	Burke
Kings Park Elementary	Springfield
Lacey Head Start Center	Annandale
Lake Accotink Park Main Office	Springfield
Lake Braddock Secondary	Burke
Langley High	McLean
Lanier Middle	Fairfax
Laurel Ridge Elementary	Fairfax

Lee District Rec Center	Alexandria
Lee High	Springfield
Lees Corner Elementary	Fairfax
Lemon Road Elementary	Falls Church
Less Secure Shelter Home	Fairfax
Lewinsville Center Senior Center	McLean
Library - Herndon Fortnightly	Herndon
Library Patrick Henry	Vienna
Little River Glen Senior Center	Fairfax
Little Run Elementary SACC	Fairfax
London Towne Elementary	Centreville
Longfellow Middle	Falls Church
Lorton Center - OTS	Lorton
Lorton Community Library	Lorton
Lorton Senior Center	Lorton
Louise Archer Elementary	Vienna
Luther Jackson Middle	Falls Church
Lynbrook Elementary	Springfield
Madison High	Vienna
Mantua Elementary	Fairfax
Marshall High	Falls Church
Marshall Road Elementary	Vienna
Martha Washington Community	Alexandria
Mason District Park (no personnel)	Annandale
Massey Building	Fairfax
McLean Community Center	McLean
McLean High	McLean
Mental Health - Mount Vernon	Alexandria
Merrifield Hub (MTC)	Fairfax
Mondloch Emergency Shelter	
Mosby Woods Elementary	Fairfax
Mount Eagle Elementary	Alexandria
Mount Vernon Adult Day Health Care	Alexandria
Mount Vernon District	Alexandria
Mount Vernon District Office	Alexandria
Mount Vernon High	Alexandria
Mount Vernon Mental Health	Alexandria
Mount Vernon Rec Center	Alexandria
Mount Vernon Senior Center/ADS-Hope Ctr. Suite 1	Alexandria
Mount Vernon Woods Elementary	Alexandria
Mountain View Highkelly	Centreville
My Friends Place - Calico Corner	Annandale
My Friends Place - Calico Corner	Annandale
Navy Elementary	Fairfax
Network Services - Radio Repair Shop	Fairfax
New Beginnings	Chantilly
New Generation	Vienna
New Generation	

New Government Center	Fairfax
Newington Forest Elementary	Springfield
Norman M Cole, Jr Pollution Control Plant	Lorton
North Springfield Elementary	Springfield
Northwest Mental Health	Reston
Oak Hill Elementary	Herndon
Oak Marr Rec Center	Oakton
Oak View Elementary	Fairfax
Oakton Arbor	Annandale
Oakton Arbor Group Home	Annandale
Oakton Elementary	Oakton
Oakton High	Vienna
Oakwood Shelter Home	
Office of Food Services, Springfield Industrial	Springfield
Office of Sheriff - Field Office	Fairfax
Olde Creek Elementary	Fairfax
Orange Hunt Elementary	Springfield
Packard Building - Arts Council Rental	Annandale
Parklawn Elementary	Alexandria
Patrick St. Group Home	Vienna
Pennino Building	Fairfax
Pimmit Hills Alternative High	Falls Church
Pine Spring Elementary	Falls Church
Pinecrest Golf Course	Alexandria
Poe Middle	Annandale
Pohick Regional Library	Burke
Police - CIB Public Safety	Chantilly
Police (Criminal Justice) Academy	Chantilly
Police Administration Headquarters (Old Police Ann	Fairfax
Police Firing Range\Driving Track	Chantilly
Police-Heliport	Fairfax
Poplar Tree Elementary	Chantilly
Prospect Hill Alternative School Program	Fairfax
Providence Elementary (Formerly Jermantown)	Fairfax
Providence Rec Center	Falls Church
Quander Road Center	
Ravensworth Elementary	Springfield
Recovery Woman's Center	Fairfax
Retirement Agency	Fairfax
Richard Byrd Community Library	Springfield
Riverbend Nature Center	Great Falls
Riverside Elementary	Alexandria
Robinson Secondary	Fairfax
Rocky Run Middle	Chantilly
Rolling Valley Elementary	Springfield
Rose Hill Elementary	Alexandria
Rose Hill Hub (STC)	Alexandria
Sager Alternative School Program	Fairfax

Sangster Elementary	Springfield
Saratoga Elementary	Springfield
School Food Service	
Senior Center - Groveton	Alexandria
Senior Center - Hollin Hall	Alexandria
Senior Center - Pimmit Hills	Falls Church
Senior Center - Springfield	Springfield
Shelter House - Hollybrooke	Falls Church
Sheriff Administrative Services Division	Fairfax
Sherwood Hall Regional Library	Alexandria
Shrevewood Elementary	Falls Church
Sideburn Support Center - Administrative	Fairfax
Silverbrook Elementary	Fairfax Station
Sleepy Hollow Elementary	Falls Church
Solid Waste Division	Lorton
South Run Rec Center	
Spring Hill Elementary	McLean
Spring Hill Rec Ctr	McLean
Springfield Estates Elementary	Springfield
Springfield Outpatient	Springfield
Stenwood Elementary	Vienna
Stone Middle	Centreville
Stoneybrooke Park/Stoneybrooke Mansion	Alexandria
Stratford Landing Elementary	Alexandria
Stuart High	Falls Church
Sully District - Fort Hill Center (Sup Frey)	Centreville
Sunrise House I - Short Term	Herndon
Sunrise House II - Short Term	Herndon
Teen Center - Old Firehouse	McLean
Terre Centre Elementary	Burke
The Enterprise School	Vienna
Thomas Jefferson Community	Falls Church
Thomas Jefferson High (Science & Technology)	Alexandria
Thoreau Middle	Vienna
Timber Lane Elementary	Falls Church
Twain Middle	Alexandria
Twin Lakes Golf Course	Clifton
Tyson's Corner Hub (STC)	Vienna
Tysons-Pimmit Regional	Falls Church
Union Mill Elementary	Clifton
VDOT - HQ/Permits	Chantilly
VDOT Permits	Fairfax
Vienna Elementary	Vienna
Virginia Hills Center	Alexandria
Virginia Run Elementary	Centreville
Wakefield Forest Elementary	Fairfax
Wakefield Turf Shop	Annandale
Walnut Hill Center	Falls Church

Waples Mill Elementary	Oakton
Washington Mill Elementary	Alexandria
Wastewater Collection Division/Line Maintenance	Burke
Water Authority	Merrifield
Waynewood Elementary	Alexandria
West Potomac High	Alexandria
West Springfield Elementary	Springfield
West Springfield High	Springfield
Westbriar Elementary	Vienna
Westgate Elementary	Falls Church
Westlawn Elementary	Falls Church
Westmore Elementary	Fairfax
Weyanoke Elementary	Alexandria
White Oaks Elementary	Burke
Whitman Middle	Alexandria
William Halley Elementary	Fairfax Station
Willow Springs Elementary	Fairfax
Willston Multicultural Center	Falls Church
Wilton Woods Administrative Center	Alexandria
Wolftrap Elementary	Vienna
Woodburn Center	Annandale
Woodburn Elementary	Falls Church
Woodlawn Elementary	Alexandria
Woodley Hills Elementary	Alexandria
Woodrow Wilson Library	Falls Church
Woodson High	Fairfax

I-NET Physical Overview

**SEE THE WEBSITE
(www.fairfaxcounty.gov/dpsm) TO DOWNLOAD
APPENDIX H**

Functional Areas

- 1. Video**
 - Background
 - Current Capabilities
 - Production
 - Video Teleconferencing
 - Desk Top Video Conferencing
 - Interactive Digital Video Workstations
 - Satellite Teleconferencing Centers
 - Video Archives
 - KIOSK/IVR
- 2. Network Services**
 - Administrative Data, i.e., Corporate Systems
 - Email (Exchange)
 - Internet/Intranet Usage
 - Internet/Intranet Access to Central Databases
 - Electronic Data Exchange
 - Video (Streaming Video, Full motion video, etc.)
 - Geographic Information Systems (GIS)
 - Imaging
- 3. Telecommunications (Voice)**
 - Voice over IP
- 4. Public Safety**
 - Computer Aided Dispatch
 - Safety Alarm System (Intruder detection, fire alarm, centralized HVAC, etc.)

Definition: Classes of Environments

- Campus Networks, Government Center and Massey - Minimum of two OC-48
- Large Sites (greater than 50 nodes) - Minimum of two OC-12
- Medium sites (10-49 nodes) - Minimum of two OC-3
- Small sites (9 nodes or less) - Minimum of OC-3

Background

Fairfax County Government currently has three active cable channels, 16, 41 and 44 on the Media General Home Subscriber Net (HSN) and the Jones cable system in Reston Virginia, with studio facilities at the Fairfax County Government Center. Channel 16 is the government channel for Fairfax County, providing County citizens with government services information, emergency information, and public safety information. Channel 16 produces over 850 hours of original television programming each year. Channel 16 also produces several hundred hours of live government meetings such as the Board of Supervisors, Planning Commission, and the Board of Zoning Appeals from the Government Center as well as live meetings at schools and government centers around the County. Channel 41 is the encrypted County training channel, providing video training, interactive teleconferences and telecourses to 10,000 employees. Channel 44, another government channel, which is currently videotext only, now carries 24-hour library information on the HSN. Two additional government channels will be activated within the next three years on the HSN.

Channels 16 and 41 use the existing I-Net to send signals to the HSN headend for broadcast. Channel 16 reaches all of the HSN subscribers, and Channel 41 is received by 400 selected cable boxes located at various County government facilities, delivering over 13,000 hours of video programming on the cable systems.

3.0 Current Capabilities

ALL CURRENT CAPBILITIES MUST BE AVAILABLE WHEN THE I-NET IS COMPLETED
--

The current I-Net provides interconnection of audio and video signals from multiple locations within Fairfax County to the Media General headend, for distribution to the HSN and government facilities throughout the County. The original I-Net system was constructed in 1984 and is a coaxial wire based system. The video signals provided by Channel 16 and Channel 41 to I-Net input meet broadcast standards RS-250-B and the audio signals meet EIA standards for broadcast. The following are the system capabilities:

- 1) The Telecommunications Production Division transmits 24-hour video and audio from the Government Center over the I-Net on 174 MHz to the Media General headend, located in Merrifield Virginia. These signals are then retransmitted on subscriber Channel 16 by Media General.
- 2) The Telecommunications Production Division transmits 24-hour video and audio from the Government Center over the I-Net on 162 MHz to the Media General headend. These signals are then scrambled and retransmitted on subscriber channel 41, which only government employees have the ability to view through specialized converter boxes.
- 3) The Telecommunications Production Division has an additional government information Channel. Channel 44 on the HSN provides library information on a 24-hour basis. This information is delivered to the head end via telephone and transmitted directly to the HSN from a character generator located at the head end.
- 4) The Telecommunications Production Division has two additional channels for open public channels on the HSN, which have not yet been activated. These channels, when operational, will also be sent over the I-Net to the Media General headend for transmission on the HSN on channels to be specified.

- 5) The Disaster Operations Center (DOC) has the ability to override Channel 16 on the subscriber network by interrupting the I-Net feed from the Government Center on Channel 16. A video signal is sent to the Media General headend over the I-Net from the DOC and is detected by a video detect switch that switches to the DOC signal interrupting the signal from Channel 16 feeding the headend.
- 6) The I-Net is used to transmit Channel 16 and Channel 41 live broadcasts, such as Town meetings from school locations and live training for police or fire, from police and fire training academies. Live programs utilize the I-Net to send the signals back to the Media General headend. In order to accomplish this, either 174 MHz or 162 MHz are used, which requires staff to turn off the path from the Government Center for either Channel 16 or 41 to accommodate the transmission from the remote location.
- 7) The Department of Telecommunications Productions has a five-meter Satellite antenna on the rooftop of the Pennino building. The audio and video signals are transmitted over the I-Net from the Pennino building to the Government Center, where they are then placed onto either Channel 16 or Channel 41. This I-Net link utilizes AM modulators set to HRC channels 37 and 38, which are blocked from the rest of the I-Net to prevent interference. This antenna and link provide the County with the ability to downlink teleconferences and telecourses to be broadcast onto either channel 16 or 41.
- 8) The I-Net is used to link the County helicopter video and audio from the Massey Building to the Disaster Operations Center (DOC). The I-Net link frequency used to send the signals from the Massey building receive site to the DOC is 270 MHz. This is an extremely vital link for public safety.

Production

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
Transmit Channel 41	X				
Transmit Library Bulletin Board	X				
Transmit from all schools	X				
Transmit from all Government centers	X				
Transmit from Telecommunications Production Center					
Transmit from Conference Center	X				
Transmit from Forum	X				
Two Additional Channels for HSN		X			
Fire, Police and Internal Training Channels		X			

Phase 1

The ability to transmit from all Fairfax County Public schools and Governmental Centers to the Media General headend, and the Telecommunications Production transmission center located at the Government Center. The Government Center also has a conference center and a public forum that require interconnect to the I-Net for live television transmissions.

Phase 2

Fiber feeds from the County Government transmission center for three additional video channels to Media Generals head end for distribution on the County training network. The three additional training channels are for Fire, Police and internal training.

Video Teleconferencing Centers

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
<i>County / Citizen Access</i>					
<i>Government Centers</i>					
New Government Center	X				
Hunter Mill District	X				
Braddock District	X				
Mount Vernon District		X			
Providence District		X			
Sully District		X			
Mason District		X			
Lee District		X			
Springfield District		X			
Dranesville District		X			
<i>Regional Libraries</i>				X	
<i>Community Centers</i>				X	
<i>County / Regional Government Access</i>			X		

County Desktop Access					
Pilot Test Program	X				
Desktop Teleconferencing		X			
Interactive Training				X	

A. County / Citizen Access

The new fiber I-Net should provide teleconferencing between Government centers, Library Meeting rooms, and Recreation centers when fully implemented. These rooms will be open to the public as well as for governmental use.

Phase 1

When the fiber I-Net is installed a teleconference pilot installation connecting three of the Government centers is to be implemented during phase one, and if successful, the other government centers will be connected and made operational in phase two.

Phase 2

All Government Centers are to be connected after the success of the pilot has been demonstrated.

Phase 3

Completion of the teleconferencing network will require connecting Library meeting rooms and Recreation centers

B. County / Regional Government Access

A regional gateway interconnect needs to be provided to send and receive video, voice, and data signals from other jurisdictions surrounding the Washington DC metropolitan area. This gateway will allow video, voice, and data to be shared with the other governments for the purpose of teleconferencing, information exchange, data exchange, and streaming video to each jurisdiction.

C. County Employee Desktop

Phase 1

A pilot to test intra-county desktop teleconferencing should be implemented during this phase. The overall I-Net system should be designed to accommodate and incorporate video and audio streaming with the desktop teleconferencing.

Phase 2

The desktop teleconferencing system should be completed during this phase. This desktop teleconference system should include the ability to do multiple individual teleconferences, group teleconferences, and interactive training.

Phase 3

The interactive training center located at the Government Center will be installed and operational during this phase. This training center will allow County employees to do interactive training at their desktop computers with the ability to talk and directly ask questions of the instructor while taking courses

Desktop Videoconferencing

Desktop videoconferencing allows County Employees at two more computers to send and receive digital video, sound and text over a network. Employees connect directly to each other, or, to host computers running reflector software, which reflect video, audio and text to all connected.

Desktop videoconferencing impacts employee productivity by supporting employee collaboration. Employees will be able to learn new information and gain understanding through an interactive and integrated system.

Year 1 - 2002

	No. locations	No. of Rooms	Total No. Computers	Hours/Week/Computer Usage
Campus Environment				
Government Center	3	50	150	750
Massey Campus	4	15	55	275
Large Sites	0	40	60	300
Medium Sites	0	0	0	0
Small Sites	0	0	0	0

Year 1 - 2003

	No. locations	No. of Rooms	Total No. Computers	Hours/Week/Computer Usage
Campus Environment				
Government Center	3	100	350	1500
Massey Campus	4	30	100	500
Large Sites	0	75	100	500
Medium Sites	0	10	10	100
Small Sites	0	0	0	0

Year 1 - 2004

	No. locations	No. of Rooms	Total No. Computers	Hours/Week/Computer Usage
Campus Environment				
Government Center	3	300	950	4750
Massey Campus	4	150	200	1000
Large Sites	10	150	300	1500
Medium Sites	35	40	55	750
Small Sites	0	0	0	0

Year 1 - 2005

	No. locations	No. of Rooms	Total No. Computers	Hours/Week/Computer Usage
Campus Environment				
Government Center	3	500	2500	12000
Massey Campus	4	300	450	3500
Large Sites	10	150	300	1500
Medium Sites	50	75	125	1250
Small Sites	100	110	350	1750

Year 1 - 2006

	No. locations	No. of Rooms	Total No. Computers	Hours/Week/Computer Usage
Campus Environment				
Government Center	3	750	4500	24500
Massey Campus	4	450	600	18500
Large Sites	10	300	1000	7500
Medium Sites	125	150	300	9500
Small Sites	250	300	600	17500

Interactive Digital Video Workstations

Number of Workstations

	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Campus Environments</u>					
Government Center	750	1500	2500	5000	6000
Massey Campus	250	500	1500	2000	2500
<u>Large Sites</u>	50	100	150	300	500
<u>Medium Sites</u>	10	25	100	150	150
<u>Small Sites</u>	5	10	15	25	25

Satellite teleconferences and telecourses

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
Third-party interconnects	X				
Interactive training center				X	

Phase 1

Interconnects to third party video providers for satellite up-link and downlink to/from the Government Center Productions Transmission Center need to be provided. This could be connected to the central television switch in Washington DC. The gateway should be able to deliver full 30 frame per second NTSC video (RS-250B) with audio.

Phase 3

Interactive training center will be installed and operational during Phase 3. County employees to do interactive training at their desktop computers with the ability to talk to and directly ask questions of the course instructor.

Video Archive

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
Pilot testing	X				
Gateways for Government access		X			
Gateways for Public access				X	

Gateways to file servers for delivering video and audio archives of government meetings, information programs, and training programs for employees need to be incorporated into the system so that the public, government officials, and government employees can access these archives.

Phase 1

During phase one a pilot should be implemented testing the operation of such a file server service.

Phase 2

Pending success of pilot program archival access should be expanded to all Government agencies

Phase 3

Addition of Public access to archival library should be completed at this stage

Kiosk

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
Libraries					
Tysons Pimmit Regional	X				
Sherwood Regional	X				
Reston Regional	X				
Pohick Regional	X				
Lorton Community	X				
John Marshall Community	X				
Fairfax City Regional	X				
Dolley Madison Community	X				
Kings Park Regional	X				
Centerville Regional	X				
Warrenton	X				
George Mason	X				
Arlington County			X		
Loudon County (2 sites)			X		
Inova (2 sites)			X		
Government Centers					
Mason District	X				
County Government	X				
Tysons Transit Station	X				
Malls					
Tysons Corner (2 sites)	X				
Springfield (2 sites)	X				
Reston Town Center	X				
Fair Oaks	X				

The County kiosk system will need a data interconnect for each kiosk to both send and receive citizen information. The I-Net should provide for a direct connection to the Government Center from all of the kiosks located around the County in nine public libraries, five Recreation Centers, two Government Centers, and three shopping centers.

Network Services

Fairfax County is developing a robust network environment that will deliver services to support all requirements and administrative needs of the system. The size and complexity of the County's Enterprise network requires the aggressive use of technology tools to manage and support the environment. This network supports over 10,000 nodes and is comprised of Token Ring and Ethernet topologies with both ATM and Gigabit Ethernet. The Enterprise network is also a multi-protocol environment, which is trying to standardize on TCP/IP as the protocol of choice, but must also run SNA and SPX/IPX

The key network services and technologies that will be implemented by Fairfax County are: Remote Network Management, Enterprise Systems Management, Directory Services, and Remote Access

Remote Network Management

Remote network management permits the central maintenance, configuration, and troubleshooting of network hardware devices including hubs, switches, routers, and servers. In addition, this service offers the capability to perform centralized network performance monitoring. The implementation of remote network management services establishes a fully functional Network Operations Center (NOC). The creation of the NOC allows County Network Staff to be proactive in preventing network problems and minimizing downtime, and permits quick response and resolution to network failures.

Enterprise Systems Management

The implementation of enterprise system management technologies provides both management and supports tools that best leverage the resources of Fairfax County. This technology will drastically reduce the amount of time spent on-site troubleshooting, updating, configuring, and examining the personal computers and servers in the County's Enterprise Network. Enterprise systems management technologies provide at a minimum the following capabilities:

- Automated Hardware and Software Inventory
- Software Distribution
- Remote Control of Desktop Computers and Servers

Directory Services

Fairfax County will implement enterprise-class directory services in order to achieve two goals. First, directory services will be an enabling technology that will offer easy network access and facilitate the sharing of information and resources across the County's network. Second, directory services will establish an environment that will simplify management and support of network access and network resources. Enterprise directory services will feature the following:

- Repository of Network Objects
- User Authentication (Single Network Login)
- Shared Network Resources
- Directory Services Replication

Remote Access

Fairfax County's goal is to provide access to network resources, to include, but not limited to, file sharing, e-mail, and applications, from an off-site location. This service will be extended to all County staff, as required, i.e., telecommuters, vendors, and special interest groups. The service must accommodate both analog and digital communication links, and be available 24 hours per day and 7 days per week. This service will be evaluated for outsourcing to either an ISP or a third party vendor. VLAN technology will be evaluated

Year 1 - FY 2002	Year 2 - FY 2003	Year 3 - FY 2004
Remote Network Management	Directory Services Phase II (medium sites)	Directory Services Phase III (Small sites)
Directory Services Phase I (Campus Environments and Large remote Sites)	Enterprise Systems Management Phase II (medium sites)	Enterprise Systems Management Phase III (Small sites)
Enterprise Systems Management Phase I (Campus environment Workstations and Servers)	Remote Access Phase II (2000 Concurrent Connections)	Remote Access Phase III (4000 Concurrent Connections)
Remote Access Phase I (1000 Concurrent Connections)		

Corporate System Data including Email services

	Year 1 - 2002			Year 2 - 2003			Year 3 - 2004		
	Size	Usage	Connectivity	Size	Usage	Connectivity	Size	Usage	Connectivity
Government Center	large	medium	County + outside	large	high	County + outside	-----	-----	-----
Massey Complex	large	medium	County + outside	large	high	County + outside	-----	-----	-----
Large Sites	medium	low	County + outside	medium	medium	County + outside	medium	high	County + outside
Medium Sites	medium	low	County	medium	medium	County	medium	high	County + outside
Small Sites	small	low	County	small	low	County	small	medium	County

	Year 4 - 2005			Year 5 - 2006		
	Size	Usage	Connectivity	Size	Usage	Connectivity
Government Center	-----	-----	-----	-----	-----	-----
Massey Complex	-----	-----	-----	-----	-----	-----
Large Sites	-----	-----	-----	-----	-----	-----
Medium Sites	-----	-----	-----	-----	-----	-----
Small Sites	small	high	County + outside	-----	-----	-----

Corporate data is required by all appendent locations within the County. However, the breadth and detail of the quantity of information is less based on size and complexity of the site. As the system matures this will gradually increase across all sites, such that by Year 4 all sites have availability for all County data.

The major campus environments will be brought on line first followed by the large sites with the smaller sites coming on line in the 4th year. **Integrated Voice/Data via IP**

Description: Voice Communication

The County's voice systems currently range from large digital PBX switches and smaller electronic key systems to single line analog sets. Utilizing the I-NET, we will begin migration to multi-service access devices (MAD) that will allow the County to carry a substantial portion of it's internal voice traffic over the WAN backbone rather than the Public Switched Telephone Network (PSTN). This effort will begin at the larger sites, but is equally applicable to smaller sites as network devices are upgraded and enhanced. This will also facilitate the delivery of faxes and voice conferencing between sites. Agencies will be able to build multi-site voicemail and call processing applications that will reduce staff and customer time required to move and record information.

	2002	2003	2004	2005	2006
NGC	Migrate T-1 circuits to I-NET, design migration to IP	Redesign trunking and internal dial plans for use on WAN	Consolidate voice/data trunks and continue migration to IP	Implement Computer Telephony in selected agencies	Continue deployment of enhanced telephony services
Massey Campus	Migrate T-1 circuits to I-NET design migration to IP	Redesign trunking and internal dial plans for use on WAN	begin migration to IP gateway	Implement Computer Telephony, reduce trunk counts	Continue deployment of enhanced telephony services
Large Sites	Redesign trunking and internal dial plans for use on WAN	Equip existing systems with IP gateways or replace	Design agency dial plans using IP between sites	Reduce trunk counts	Continue deployment of enhanced telephony services
Medium Sites	Develop plan for MAD deployment	Begin MAD deployment, redesign dial plans	Design agency dial plans using IP between sites	Provide enhanced services through centralized telephony servers	Continue deployment of enhanced telephony services
Small Sites	Trial MAD at select sites	Design agency dial plans using IP between sites	Replace existing equipment with data/telephony servers	Provide enhanced services through centralized telephony servers	Continue deployment of enhanced telephony services

Collaboration

Number of Users

	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Campus Environments</u>					
<u>Government Center</u>	1000	1500	2000	6000	6000
<u>Massey (Public Safety)</u>	500	1000	1500	4000	4000
<u>Large Sites</u>	150	300	500	1000	1000
<u>Medium Sites</u>	50	100	150	300	500
<u>Small Sites</u>	10	10	20	20	20

Collaboration requirements will include features like:

Calendar, e-mail, asynchronous & synchronous discussions features, multimedia capabilities, web pages, scheduling database, newsgroups, multicasting capabilities, videoconferencing at the desktop level, remote access, electronic portfolios, telephony enabled computers, faxing and scanning features, wireless connectivity, PDA interaction.

Internet/Intranet Usage

Description:

The current County WAN is built on Bell Atlantic's SMDS service. The network consists of T1, Fractional T1, ISDN, Frame Relay, and Dialup connections. A 4.5 Mbps link supports our connection between Fairfax County to the County's Internet Service Provider (ISP), PSINet to the Internet. The WAN currently supports TCP/IP, IPX, and SNA protocols and is being converted from an existing 16 MB Token Ring to Gigabit Ethernet, with additional WAN bandwidth as a result of the new I-Net, we could provide central support for all enterprise level packages. Local area networks in large, medium and small sites, as well as within the Campus environments are mainly based on Microsoft NT Server 4.0 with support for TCP/IP and Novell. The campus networks are rapidly moving to 10BaseT and 100Base-TX to support the increased load as the networks become integrated into the facilities.

While it is difficult to determine the precise number of PCs having Internet connectivity, offices are wired and the number of network devices is projected to reach over 10,000 in the coming months.

	2002	2003	2004	2005	2006
Campus Environments					
Government Center	45 Mbps	64 Mbps	100 Mbps	100 Mbps	100 Mbps
Massey Complex	45 Mbps	64 Mbps	100 Mbps	100 Mbps	100 Mbps
Large Sites	25 Mbps	34 Mbps	45 Mbps	64 Mbps	100 Mbps
Medium Sites	25 Mbps	34 Mbps	45 Mbps	64 Mbps	100 Mbps
Small Sites	10 Mbps	25 Mbps	34 Mbps	45 Mbps	64 Mbps

Internet/Intranet Access to Central Databases

Description: Over the next several years we will see improved accessibility to central databases via the Inter/intranet. Though the individual data transfers may not be large, the frequency of transfers and the number of users performing transfers will grow. The key drivers of this growth will be the availability of the types of resources, employees access to benefits, and employee information. The table below illustrates the estimated growth in Mbps transferred per work hour based on the population of users, frequency of transfers, and size of data transferred.

					2002		2003		2004	
			Population	Data Size (MB)	Frequency (per week)	% Population	Frequency (per week)	% Population	Frequency (per week)	% Population
Instructional resource access			12,000	2	1	50%	2	75%	4	85%
Employee self service			18,000	5	2	50%	4	65%	7	75%
Community access to information			927,630	10	4	35%	6	50%	6	65%
						327,221 MB/hour		702,473 MB/hour		918,292 MB/hour

Human Resources Interview/Recruitment Centers

The following describes the equipment to be installed at the Department of Human Resources at the Government Center, which will accommodate career development activities and allow staff to conduct interviews nationally and internationally.

1st Year - 2002	2nd Year - 2003	3rd Year - 2004	4th Year - 2005	5th Year - 2006
1	1	1	refinement	refinement
One electronic interview center	One additional electronic interview center	One additional electronic interview center	equipment upgrades	equipment upgrades

HR at the Government Center will contain three workstations or rooms specifically designed for private interviews and career development. Each equipped with high quality camera, microphones, presentation device(s), large monitor, and connectivity to outside resources. High quality, computer based, full motion video and audio will promote national/international/in-house electronic interviews and career development. Remote national/international/in-house broadcast or posting of video based job announcements will also be feasible.

Public Safety

	Phase 1	Phase 2		Phase 3	
	2002	2003	2004	2005	2006
Channel 16 interrupt link to DOC	X				
Video Magistrate data port	X				
Emergency information data port	X				
Helicopter video to DOC	X				
Helicopter video to other Government facilities		X			
Security and surveillance of Government facilities				X	
VDOT video traffic signals				X	

(i) Phase 1

The Channel 16 interrupt link from the Disaster Operations Center to Media General head-end must also be provided.

The Video Magistrate system and the Emergency information system currently utilize telephone lines to accomplish the transfer of data. The new fiber I-Net needs to accommodate both of these services with a data port. In each of these systems, switched interconnecting paths for video, audio, or both must be provided on the I-Net system. Both of these data paths need to be secure and full 24-hour operation with redundant paths.

The link for the County helicopter video must be provided from the Massey building to the Disaster Operations Center.

(ii) Phase 2

Helicopter video from the Massey building is to be provided to other Government centers as needed.

(iii) Phase 3

Security and surveillance of government facilities located throughout Fairfax County and Virginia Department of Transportation traffic video signals are to be provided to government officials at various locations within Fairfax County. In each of these systems switched interconnecting paths for video, audio, or both must be provided for on the I-Net system.

Sites, Nodes and Population of Employees

County Facilities	# of Locations	# of Nodes
Government Center	3	6,000
Massey (Public Safety) Campus	6	3,500
Large Sites	10	1,500
Medium Sites	53	1,000
Small Sites	225	750
Total Sites/Employees:	297	12,750

Appendix J

FAIRFAX COUNTY PUBLIC SCHOOLS

I-Net Requirements

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IIa.	Distance/Distributive Learning Classrooms	Page 2
IIb.	CU-See Me IP Digital Videoconferencing	Page 3
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I. Video Teleconferencing Centers

	Year 1 - 2003			Year 2 - 2004 (example) *			Year 3 - 2005 (example) *			Year 4 - 2006 (example) *			Year 5 - 2007 (example) *		
	Size	Usage	Connect- ivity	Size	Usage	Connect- ivity	Size	Usage	Connect- ivity	Size	Usage	Connect- ivity	Size	Usage	Connecti vity
Dunn Loring Cluster I & II	-----	-	-----	-----	-----	-----	medium	low	FCPS + outside	-----	-----	-----	-----	-----	-----
Sleepy Hollow Cluster III	-----	-	-----	-----	-----	-----	medium	low	FCPS + outside	-----	-----	-----	-----	-----	-----
Va Hills Cluster IV & V	-----	-	-----	-----	-----	-----	medium	low	FCPS + outside	-----	-----	-----	-----	-----	-----
Eleven Oaks Cluster VI & VII	-----	-	-----	-----	-----	-----	medium	low	FCPS + outside	-----	-----	-----	-----	-----	-----
Westmore Cluster VIII	-----	-	-----	-----	-----	-----	medium	low	FCPS + outside	-----	-----	-----	-----	-----	-----
Belle Willard	-----	-	-----	medium	Med.	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----
Burkholder	large	Med.	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chapel Square	large	high	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
City Square	-----	-	-----	-----	-----	-----	-----	-----	-----	small	low	FCPS + outside	-----	-----	-----
Devonshire	-----	-	-----	-----	-----	-----	-----	-----	-----	small	low	FCPS + outside	-----	-----	-----
Edsall Park	-----	-	-----	large	high	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----
General Svcs Center	-----	-	-----	small	low	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lacey	-----	-	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	medium	mediu m	-----
Sideburn Center	-----	-	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	small	low	FCPS + outside
Walnut Hill Center	large	mediu m	FCPS + outside	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
WWC	-----	-	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	small	low	FCPS + outside

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Administrative Centers will be equipped with standard, turnkey videoconferencing systems such as PictureTel, V-Tel, Tandberg1, etc. All systems will be compliant with N.323 standard. Note that the Burkholder and Chapel Square facilities would be capable of broadcast quality transmissions.

The Burkholder Center videoconferencing area would also serve as a press staging area in the Superintendent's Conference Room. School Board committee meetings could also be cablecast from this area. Chapel Square would be able to host digital videoconferences, in addition to video events with higher production value.

Three administrative centers will be brought on line each year starting with Burkholder, Chapel Square, and Walnut Hill.

* **Locations for years two (2003) through five (2006) have not been finalized. The above locations serve to illustrate the "roll out".**

Ila. Distance/Distributive Learning Classrooms

The following provides the description of the distance/distributive learning classrooms to be constructed in each high, middle and elementary school, as well as the centers, in addition to CU-See Me technology. Section IIb provides an example of the full anticipated use of CU-See Me over the I-Net.

1st Year - 2003	2nd Year - 2004	3rd Year - 2005	4th Year - 2006	5th Year - 2007
20	40	50	50	60
Twenty electronic classrooms will be brought on line.	Forty electronic classrooms will be brought on line.	Fifty electronic classrooms will be brought on line.	Fifty electronic classrooms will be brought on line.	Sixty electronic classrooms will be brought on line.

High Schools, Middle Schools, Elementary, and Academies represent 194 locations at this time (see School sheet for list of projected classrooms). There are approximately 100 additional locations at which alternative programs are provided. These have been added to the final two years of the five-year plan but could be accelerated, if needed. Each location would be equipped with a standard distance/distributed education electronic classroom over the five-year span. The standard FCPS distance/distributed education classroom of the future will be equipped with a computer for each student (approximately 25 stations, less for the alternative programs), cameras, microphones, interactive presentation devices, and connectivity to outside resources.

It should be noted that schools would also be able to use less expensive videoconferencing mobile units to conduct interactive events over the I-Net from other locations within the school building. These events could be staged from the cafeteria, auditorium, or a classroom. In FY 1999 dollars, some of these inexpensive videoconferencing units are available for \$1,500. This price will continue to drop as we move through the 2002 to 2006 time frame. As we look to the future, schools might have inexpensive video conferencing units that complement, and work in concert, with desktop video conferencing technologies.

Business Case: These electronic classrooms will be used to deliver low-enrollment, Advanced Placement/International Baccalaureate, and college-level courses. They will provide the capability to deliver 24 courses at any one time, and allow the teacher to monitor four of the receive sites. (Bandwidth requirements will range from 2 to 4 Mbit/sec for today's standard NTSC broadcast, and 60 to 80 Mbit/sec for the HDTV standard.) These electronic classrooms will also be used to share enrichment activities, enrichment preparation classes, technology and curriculum inservices geared to Standards of Learning, adult and community education courses, and administrative meetings. Perhaps most importantly, these electronic classrooms will be used for a multitude of synchronous and asynchronous instructional and staff development activities for students and staff members with valuable outside resources.

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While desktop applications (such as CU- SeeMe) will enable computers throughout the building to access outside resources, these electronic classrooms will serve with standard equipment where large groups can participate in a wide variety of interactive distance learning activities. They will also serve as the video conferencing schools. (During FY 2000, an inter-departmental work group will develop a five-year plan for distance/distributed education in FCPS.) Note that the consultant should feasibility of dedicated topology/fiber(s) for FCPS video that addresses the management and technical requirements of the complex distance learning system describing emerging video distribution technologies might serve as a solution within the constraints of the present design concepts.

See Section IIb for CU-See Me Chart

IIb. CU-SeeMe IP Digital Videoconferencing

The following provides the description of the CU-SeeMe IP Digital Videoconferencing classrooms to be constructed in each high, middle and elementary school. The chart is an example of the full anticipated use of CU See Me over the I-Net.

		Year 1 2003	Year 2 2004	Year 3 2005	Year 4 2006	Year 5 2007
	Classrooms	Usage by hours per week (2)	Usage by hours per week (2)	Usage by hours per week (2)	Usage by hours per week (2)	Usage by hours per week (2)
Elementary Schools	5,036	10,211	25,230	50,360	75,540	100,310
Middle Schools	1,460	3,030	7,300	14,600	28,650	30,300
High Schools	2,498	4,998	12,490	24,980	37,485	49,980

IIc. Distance/Distributive Learning Classrooms - Desktop Videoconferencing

Desktop videoconferencing allows teachers and students at two more computers to send and receive digital video, sound and text over a network. Teachers and students connect directly to each other, or, to host computers running reflector software, which reflect video, audio and text to all connected.

Desktop videoconferencing impacts student learning by addressing diverse learning styles, supporting active learning and promoting student collaboration. Students learn new information and gain understanding through an interactive, integrated and interdi

Year 1 - 2003

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	No. of Schools	No. Classrooms Each School	Total No. Computers w/CU-SeeMe (4 per classroom)	No. Hours/Week/Computer Using CU-SeeMe (5hrs.)
Elementary School	134	38	152	760
Middle School	23	61	244	1220
High School	29	109	436	2180
Academies	6	12	48	240
Centers	29	4	16	80
Alternative Learning Centers	29	2	8	40

Year 2 - 2004

	No. of Schools	No. Classrooms Each School	No. Computers w/CU- SeeMe (10 per classroom)	No. Hours/Week/Computer Using CU-SeeMe (10 hrs.)
Elementary School	134	38	380	3800
Middle School	23	61	610	6100
High School	29	109	1090	10900
Academies	6	12	120	1200
Centers	29	4	40	400
Alternative Learning Centers	29	2	20	200

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Year 3 - 2005

	No. of Schools	No. Classrooms	No. Computers w/CU-SeeMe(15 per classroom)	No. Hours/Week Spent Using CU-SeeMe (15 hrs.)
Elementary School	134	38	570	8550
Middle School	23	61	915	13725
High School	29	109	1635	24525
Academies	6	12	180	2700
Centers	29	4	60	900
Alternative Learning Centers	29	2	30	450

Year 4 - 2006

	No. of Schools	No. Classrooms	No. Computers w/CU-SeeMe (20 per classroom)	No. Hours/Week Spent Using CU-SeeMe (20 hrs.)
Elementary School	134	38	760	15200
Middle School	23	61	1220	24400
High School	29	109	2180	43600
Academies	6	12	240	4800
Centers	29	4	80	1600
Alternative Learning Centers	29	2	40	800

Year 5 - 2007

	No. of Schools	No. Classrooms	No. Computers w/CU-SeeMe (30 per classroom)	No. Hours/Week Spent Using CU-SeeMe (25 hrs.)
--	----------------	----------------	---	---

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Elementary School	134	38	1140	28500
Middle School	23	61	1830	45750
High School	29	109	3270	81750
Academies	6	12	360	9000
Centers	29	4	120	3000
Alternative Learning Centers	29	2	60	1500

Schools will be equipped with computers loaded with desktop videoconferencing software in each classroom. Each computer will videoconference an average of 5-25 hours per week over the 5-year time period. Videoconferences will be held between other computers on the FCPS WAN and with computers located outside the FCPS WAN.

IIIa. Video Production Centers

The following describes the video teleconferencing equipment required for the superintendent's conference room at Burkholder Center and the expansion of its cap administrative teleconferences.

(A) Administrative Requirements; (D) Distribution, Master Control, Video Repository; (P) Production Requirements

Burkholder Administrati ve Center

2003

- (P/A) Install digital ready video teleconferencing equipment in Superintendent's conference room which can be used as press staging area.
- (A) Use of I-Net to link Community Relations to MPEG 2 digital video file server(s) for schedule downloads / modifications
- (D/P) Begin digital compliance and 16:9 format compatibility with all future equipment
- (D/P) All archives saved in MPEG 2 digital format (DVCPRO)

2004

- (P) Expand video teleconferencing center to include multiple serial digital interface (SDI) 16:9

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- format cameras
- (P) Develop plans for High Definition digital video distribution via I-Net
- (A) Explore use of I-Net to support multiple administrative teleconferences via I-Net

2005

- (P) Terminate use of existing I-Net
- (A) Explore use of fiber I-Net for interactive, multiple site, administrative use. Which includes significant high-resolution digital video and data from the Chapel Square video repository.
- (P) Implement fully digital broadcast facility for Superintendent's conference room.
- (A/D) Utilize "near-video-on-demand" (NVOD) from Chapel Square MPEG 2 server system

2006

- (P) Full scale use of I-Net for digital video link to Chapel Square.
- (A) Full scale use of I-Net to link Community Relations with Chapel Square MPEG 2 video server(s)

2007

- (A) Full scale use of I-Net for administrative multi-point to multi-point teleconferences.

IIIb. Video Production Centers

The following describes the equipment and procedures required to maximize the full capabilities of the I-Net in regard to distribution, master control, and video repository at the Chapel Square Media Center.

- (A) Administrative Requirements; (D) Distribution, Master Control, Video Repository;
- (P) Production Requirements

Chapel Square Media Center

2003

- (D) Begin to implement the multiple-site distance learning plan, which will be transmitted over the I-Net by bringing on line eight electronic classrooms.
- (D) Install and transition to, multiple output, MPEG 2 based server system(s) for all video origination and recording
- (D) All new productions archived in digital MPEG 2 format (DVCPRO)
- (D) Maintain digital compliance and 16:9 format compatibility with all future equipment
- (D) Install centralized multi-layer digital routing system for all Chapel Square feeds and sources
- (D) Organize centralized management of I-Net video routing from Chapel Square Master Control
- (D) Implement initial phases of digital transmission via the I-Net

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- (P) Procure requisite administrative video conferencing components for Chapel Square that will be interoperable with other administrative video conferencing systems in FCPS.

2004

- (P/D) Continue to implement multi-site distance learning plan by bringing on line eight additional electronic classrooms
- (D) Continue to explore use of wavelength division multiplexing (WDM) via I-Net to significantly expand bandwidth
- (D) Investigate DVD archiving for MPEG 2 server system
- (D) Begin three-year program to digitize existing videotape library to facilitate storage, retrieval, and transmission. High-usage programming will be digitized first.
- (A) Full implementation of networked software management, synchronizing routing and MPEG 2 server operations
- (D) Working with colleagues across DIT, establish digital high definition video standards for FCPS.

2005

- (D) Explore I-Net broadcasting to subscriber base for national programming produced by the Fairfax Network
- (D) Continue to digitize videotape library (Year Two)
- (D) Establish a pilot to test implementation of video-on-demand (VOD) to selected FCPS libraries and begin plan to integrate this resource into other instructional databases.
- (P/D) In accordance with the franchise agreement, relinquish three encrypted channels on the Home Subscriber Network (HSN) if new fiber I-Net is operational.

2006

- (D) Implement distribution of interactive programming schedules via I-Net.
- (D) Continue to digitize videotape library (Year Three).
- (P/D) Explore multicasting of FCPS programming.
- (P) Implement integration of High Definition Television (HDTV) via fiber.
- (D) Incorporate satellite delivered programming into VOD capabilities

2007

- (D) Expand centralized fiber management switcher at Chapel Square Center or Production Center location.
- (D) Continue to digitize new titles in videotape library, if not procures digitized streams of programming by this time.
- (P/D) Implement HDTV broadcasting or multicasting.
- (P/D) Complete build of fully digital broadcast facility at Chapel Square or production center.

- (D) Formally evaluate VOD program and complete it's integration into major instructional databases.

IIIC. Video Production Centers

The following describes the equipment and procedures required to do broadcast quality productions from the Luther Jackson television Center, which fully utilize the capabilities of the I-Net system.

(A) Administrative Requirements; (D) Distribution, Master Control, Video Repository; (P) Production Requirements

Luther Jackson Television Center

2003

- (P) Expand current video production center
- Implement digital video control system for complete multi-format integration
- (P) Develop plan for digital video transmission to Chapel Square
- (D/P) Begin digital compliance and 16:9 format compatibility with all future equipment
- (A) Explore use of fiber I-Net for press use.
- (D/P) All archives saved in MPEG 2 digital format (DVCPRO)

2004

- (P) Develop plans for High Definition video transmission via I-Net
- (A) Explore use of I-Net to support multiple administrative teleconferences

2005

- (P) Terminate use of existing I-Net
- (P) Full scale digital video production facility operational for School Board coverage

2006

- (P) Full scale use of I-Net for digital video link to Chapel Square
- (A) Full scale use of I-Net for administrative multi-point to multi-point teleconferences

2007

- (P) Full scale High Definition coverage of School Board meetings via I-Net and Home Subscriber Networks
- (A) I-Net supported interactive capabilities to video server for program review

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- Notes:**
1. Exceptionally high bandwidth is required by broadcast quality video. HDTV (High Definition Television) requires 60-80Mbps/sec. Currently one video server can accommodate 16 channels of broadcast video. Chapel Square Center plans 1 to 2 video servers yielding an infrastructure capacity requirement of up to 32 channels x 80Mbps/sec or a total of 2560Mbps/sec. This number will increase as additional servers are acquired.
 2. High bandwidth equipment and future video system testing will require safeguarding data and other INET services. System design changes may involve invasive and incompatible transport technologies that will require physical infrastructure isolation for video. It is vital for the rapid testing and deployment of emergent video technologies that all essential services are protected. Video services currently exceed 15,000 hours a year and can be expected to increase. At current levels, in terms of data, this would yield: 15000 hours = 900,000 minutes = 540,000,000 seconds @ 80Mbps/sec (HDTV) or a total of 3,240,000,000 megabits of data each year.
 3. MPEG 2 may need conversion to MPEG 1 (150 Kb/s to 1.15 Mbit/sec) for streaming to accommodate current bandwidth restrictions imposed by the internet.
 4. A limited number of schools with substantial video production programs will be brought on line during 2004 to 2006 time frame.

IV. Interactive Digital Video Workstations

	<u>Number of Workstations</u>					
	Year 1	Year 2	Year 3	Year 4	Year 5	
Administrative Offices						
Dunn Loring Cluster I & II	30	50	25	25	25	
Sleepy Hollow Cluster III	30	50	25	25	25	
Va Hills Cluster IV & V	30	50	25	25	25	
Eleven Oaks Cluster VI & VII	30	50	25	25	25	
Westmore Cluster VIII	30	50	50	25	25	
Burkeholder	30	50	25	25	25	
Chapel Square	30	50	25	25	25	
City Square	30	50	25	25	25	
Edsall Park	30	50	50	25	25	
General Svcs Center	30	50	50	25	25	
Sideburn Support Center	30	50	50	25	25	
Walnut Hill Center	30	50	50	25	25	
WWC	30	50	50	25	25	2165
Centers						
Elementary Schools	1500	2000	3000	5000	6000	
Middle Schools	1500	2000	2000	8000	8000	
High Schools	2000	3000	2000	8000	8000	
						62000

V. Integrated Voice/Data via IP

Description: Voice Communication

FCPS currently has an enterprise wide platform consisting of (262) digital PBX telephone switches. All systems incorporate D.I.D. routing for approximately 32,000 numbers of which approximately 16,000 are presently in active use. Trunking is provided Over public switches, telephone network, predominately over analog services. Inbound D.I.D. routing is separated from outbound traffic. T-1 circuits provide inbound and outbound trunking on separate channels for several larger systems. Approximately 30% of the present systems are supplemented with some type of voice processing, voice mail or call management sub-systems.

	2003		2004		2005		2006		2007	
	Trunking	PBX	Trunking	PBX	Trunking	PBX	Trunking	PBX	Trunking	PBX
Admin Centers	1776	21	1776	21	1810	22	1810	22	1810	22
Centers	86	3	126	5	126	5	146	6	186	8
Elem. Schools	4764	133	4792	134	4792	134	4820	135	4854	136
Middle Schools	931	21	965	22	965	22	999	23	999	23
High Schools	1854	24	1854	24	1854	24	1854	24	1954	25

VI. Collaboration

	<u>Number of Users</u>				
	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Centers</u>	120	1000	2000	2000	6000
<u>Elementary Schools</u>	500	1000	1000	1500	6000
<u>Middle Schools</u>	500	1000	1000	1500	6000
<u>High Schools</u>	500	1000	1000	1500	6000

Collaboration requirements will include features like:
 calendaring, e-mail, asynchronous & synchronous discussions features, grading and testing functions, multimedia capabilities,
 student web pages, teacher web pages, scheduling database, newsgroups, multicasting capabilities, videoconferencing at the desktop level,
 remote access, electronic portfolios, telephony enabled computers, faxing and scanning features, wireless connectivity,
 PDA interaction

VII. Internet/Intranet Usage

Description: The current FCPS WAN is built on Bell Atlantic's ATM service. A minimum of a T1 link speed is installed at each school. An OC12 circuit supports the central data center and an OC3 circuit to Fairfax County Public School's ISP provides the path to the Internet. The WAN currently supports TCP/IP, BGP, DLSw, and IGP. This provides access to printing and mail services at Wilton Woods from any site in the school system. With additional WAN bandwidth we could provide central support for SASI and other enterprise level packages to assist in the instructional area. Local area networks in schools, centers, and administrative offices are mainly based on Microsoft Windows 2000 with support for TCP/IP. The networks in the schools are rapidly moving to 100 Base-TX in order to support the increased instructional load as the networks become integrated into the school.

While it is difficult to determine the precise number of classrooms with Internet connectivity, all classrooms are wired and the number of network devices is projected to reach over 50,000 in the coming months.

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	2003	2004	2005	2006	2007
Burkholder	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
Chapel Square	100 Mbps	155 Mbps	155 Mbps	256 Mbps	256 Mbps
Admin/ Cluster Offices	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
WWC	100 Mbps	155 Mbps	155 Mbps	256 Mbps	256 Mbps
Edsall Park	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
Walnut Hill Center	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
City Square	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Sideburn Support Ctr.	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
General Svcs Center	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Belle Willard Ctr.	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Centreville Adult Ctr.	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
Edison Ctr.	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Lacey Ctr.	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
Lorton Ctr.	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
Woodson/DIT	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Centers	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Elementary Schools	34 Mbps	45 Mbps	64 Mbps	100 Mbps	155 Mbps
Middle Schools	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps
High Schools	45 Mbps	64 Mbps	100 Mbps	155 Mbps	155 Mbps

VIII. Network Services

Fairfax County Public Schools is developing a robust network environment that will deliver services to support the instructional programs and administrative needs of the system. The size and complexity of the FCPS network requires the aggressive use of technology tools to manage and support the environment. This network supports 150,000+ students, 80,000+ adult education students, and 20,000+ employees.

The key network services and technologies that will be implemented by Fairfax County Public Schools are: Remote Network Management, Enterprise Systems Management, Directory Services, and Remote Access.

Remote Network Management

Remote network management permits the central maintenance, configuration, and troubleshooting of network hardware devices including hubs, switches, routers, and servers. In addition, this service offers the capability to perform centralized network performance monitoring. The implementation of remote network management services establishes a fully functional Network Operations Center (NOC). The creation of the NOC allows FCPS to be proactive in preventing network problems and minimizing downtime, and permits quick response and resolution to network failures.

Enterprise Systems Management

The implementation of enterprise system management technologies provides both management and support tools that best leverage the resources of Fairfax County Public Schools. This technology will drastically reduce the amount of time spent on-site troubleshooting, updating, configuring, and examining the personal computers and servers in FCPS. Enterprise systems management technologies provide at a minimum the following capabilities:

- ___ . Automated Hardware and Software Inventory
- ___ . Software Distribution
- ___ . Remote Control of Desktop Computers and Servers

Directory Services

Fairfax County Public Schools will implement enterprise-class directory services in order to achieve two goals. First, directory services will be an enabling technology that will offer easy network access and facilitate the sharing of information and resources across the FCPS network. Second, directory services will establish an environment that will simplify management and support of network access and network resources. Enterprise directory services will feature the following:

- ___ . Repository of Network Objects

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- . User Authentication (Single Network Login)
- . Shared Network Resources
- . Directory Services Replication

Remote Access

Fairfax County Public Schools' goal is to provide access to network resources, to include, but not limited to, file sharing, e-mail, and applications, from an off-site location. This service will be extended to students, faculty, staff, and parents. The service must accommodate both analog and digital communication links, and be available 24 hours per day and 7 days per week.

Implementation

Year 1 - FY 2003		Year 2 - FY 2004		Year 3 - FY 2005	
Remote Network Management		Directory Services Phase II (Begin High Schools and Middle Schools)		Directory Services Phase III (Complete High Schools and Middle Schools)	
Directory Services Phase II (Administrative Sites and Elementary Schools)		Enterprise Systems Management Phase II (Elementary Schools)		Enterprise Systems Management Phase III (High Schools and Middle Schools)	
Enterprise Systems Management Phase I (Administrative Workstations and Servers)		Remote Access Phase II (10,000 Concurrent Connections)		Remote Access Phase III (20,000 Concurrent Connections)	
Remote Access Phase I (5000 Concurrent Connections)					

IX. Chapel Square Video Repository

This page represents the technical evolution of the Chapel Square Media Center's broadcast, distribution and master control capabilities.

Year

- 2003 Implement new digital tape recording format.
 Final implementation of digital non-linear edit suites.
 Develop fiber optic network utilization plans.
 Establish scope of distance learning classroom network.
 Begin limited migration from existing I-Net to fiber optic I-Net.
- 2004 Select vendor(s) for digital video file server.
 Select vendor(s) for video routing switcher.
 Implement improvements to Jackson Middle television center.
 Evaluation of Internet broadcasting capabilities for national programming.
 Develop standards for FOPS digital multimedia production and distribution.
 Grace period for use of existing I-Net ends.
- 2005 Bid (or begin building) new interactive distance learning centers (6-10 per year).
 Integrate expanded video routing switcher into master control.
 Selective enhancements to production center to accommodate High Definition protocols.
 Begin selective Internet broadcasting for support of distance learning directives.
 Begin full-scale insertion of fiber optic technology plan.
- 2006 Restructure video plant to accommodate Internet and HDTV requirements.
 Bring total of 20 interactive distance learning classrooms on line.
 Prepare an assessment of latest generation of digital video storage technologies.
 Digitize selected archival video tapes.
 Establish Video-On-Demand capacity to each library within FOPS.
- 2007 Implement high speed digital video duplication/distribution center.

X. HR Interview/Recruitment Centers

The following describes the equipment to be installed at the Department Human Resource, Edsall Park, which will accommodate career development activities and allow staff to conduct interviews nationally and internationally.

1st Year - 2003	2nd Year - 2004	3rd Year - 2005	4th Year - 2006	5th Year - 2007
1	1	1	refinement	refinement
One electronic interview center	One additional electronic interview center	One additional electronic interview center	equipment upgrades	equipment upgrades

HR at Edsall Park will contain three workstations or rooms specifically designed for private interviews and career development. Each equipped with high quality camera, microphones, presentation device(s), large monitor, and connectivity to outside resources. High quality, computer based, full motion video and audio will promote national/international/in-house electronic interviews and career development. Remote national/international/in-house broadcast or posting of video based job announcements will also be feasible.

XI. Career Development Centers – Desktop Videoconferencing

The following describes the Career Centers with video teleconferencing capabilities, to be established in all schools but elementary, which will enable students to access information and interview from their schools.

1st Year - 2003	2nd Year - 2004	3rd Year - 2005	4th Year - 2006	5th Year - 2007
18	18	18	18	18
Eighteen CDIC's brought on-line	Eighteen CDIC's brought on-line	Eighteen CDIC's brought on-line	Eighteen CDIC's brought on-line	Eighteen CDIC's brought on-line

Installed in Middle Schools, Secondary Schools, High Schools, Academies, and Alternative Schools, a Career Development Interview Center (CDIC) will enable students to seek information regarding career, universities, colleges, training centers, and other education organizations. Two-way desktop videoconferencing will enable students to interview with the above mentioned organizations for jobs, admittance, and scholarships.

Over a five-year period, every school will be equipped with a high quality, turnkey videoconferencing system. Secondary schools with large student populations of both middle and high school students will require two centers. These centers will be located in the guidance departments.

XII. Inter/Intranet Access to Central Databases

Description: Over the next several years we will see improved accessibility to central databases via the Inter/intranet. Though the individual data transfers may not be large, the frequency of transfers and the number of users performing transfers will grow. The key drivers of this growth will be the availability of instructional resource to teachers, employees access to benefits, and parent access to student information. The table below illustrates the estimated growth in MBs transferred per work hour based on the population of users, frequency of transfers, and size of data transferred.

	2003			2004		2005		
	Population	Data Size (MB)	Frequency (per week)	% Population	Frequency (per week)	% Population	Frequency (per week)	% Population
Instructional resource access	12,000	2	1	33%	2	66%	5	80%
Employee self service	18,000	1	1	40%	2	60%	2	75%
Parental access to student data	150,000	1	1	25%	1	50%	2	75%
Community access to instruction	927,630	2			1	1%	2	3%
				1,316		3,671		11,483
				MB/hour		MB/hour		MB/hour

	2006			2007		
	Population	Data Size (MB)	Frequency (per week)	% Population	Frequency (per week)	% Population
Instructional resource access	12,000	2	8	85%	10	90%
Employee self service	18,000	1	2	80%	3	90%
Parental access to student data	150,000	1	3	80%	5	85%
Community access to instruction	927,630	2	3	6%	4	10%
				22,149		41,105
				MB/hour		MB/hour

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Main Schools	# of Schools	# of Students
Elementary Schools (includes centers)	140	86,056
Middle Schools (includes centers)	24	25,938
Alternative High Schools	4	1,262
High Schools (includes centers and Sec. schools)	27	47,212
Academies	4	?
Total:	199	160,468
Additional Schools		
Special Service Centers (Burke, Cedar, Quander)	3	229
Alternative School Programs	35	?
Total:	38	229
<i>Total Schools/Students:</i>	237	160,697